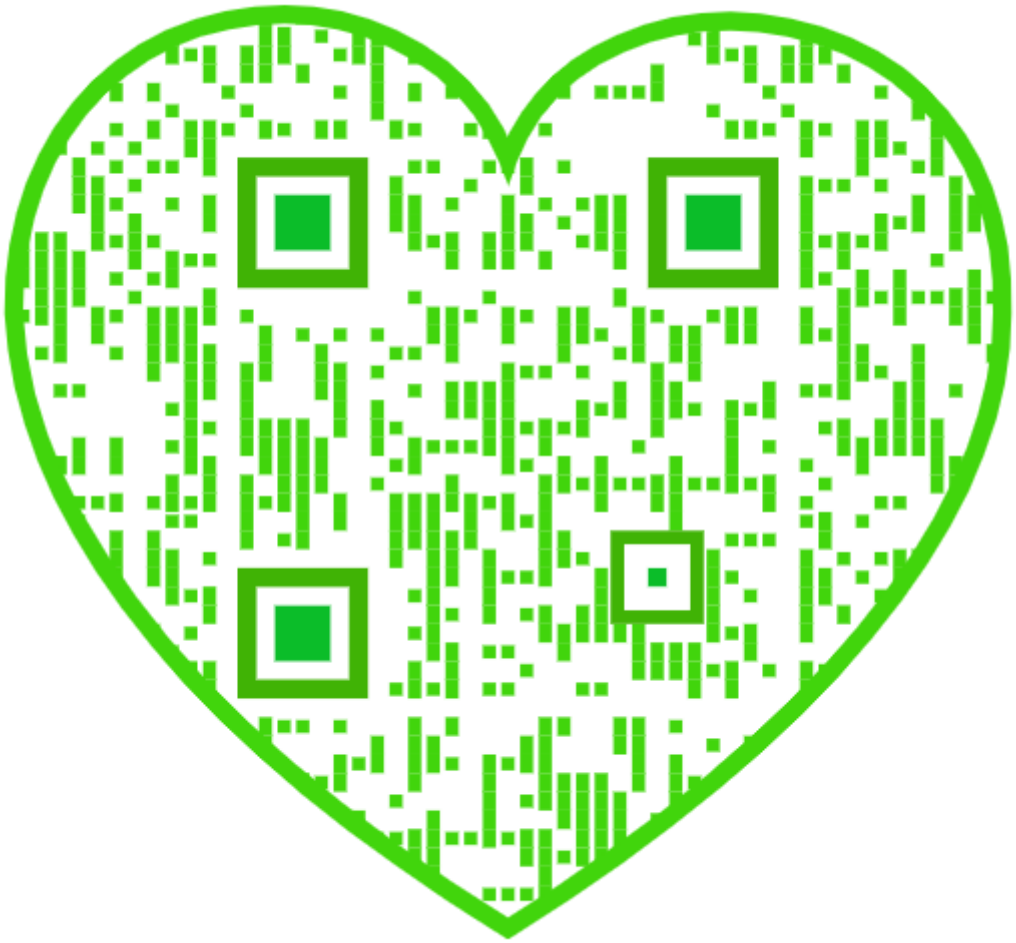

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ARCHITECT AND ENGINEER

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• ARCHITECT AND ENGINEER

Volume 157 No. 1

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APRIL

COVER: Niagara Falls Housing Project
Sewall Smith, Architect

Mr. Smith, as noted in last month's issue, recently came here from New York State to make his home. He will practice his profession in the San Francisco Bay area. The Niagara Falls Project was the biggest single building contract in the city's history, plans for which were handled by an Association of Licensed Architects, with Mr. Smith as Chief Architect.

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Vallejo Community Hospital by Gabriel Moulin Studios.

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POST-WAR PLANNING — F. W. J.

• *BUILDING INDUSTRY'S RESPONSIBILITY*

Mindful of its responsibilities in the readjustment of industry after the war, the Southern California Chapter of Associated General Contractors, has announced a plan to organize its own ranks, coordinate its objectives with the plans of other industries, and sponsor a three-year public relations campaign for the education of its members and the public in general. Doubtless this move by the Southern Chapter will be followed by a similar policy by other Chapters, including the Northern Section.

This is all good news for, as emphasized in an editorial in the CHPA Newsletter for April, "evidence from many sources points to growing dependence on the construction industry to 'hold the line' against large scale unemployment in the critical first stage after the war, until factories get rolling on a peacetime routine and commercial systems are reorganized."

Continuing, the editorial goes on to say that "the war record of contractors and builders is impressive and justifies confidence that they can be relied on for a heavy share of the boost needed to get us through the first months of readjustment and reconversion, given some reasonable 'breaks' in the way of public understanding, cooperation from other industries and specific programs on which they can go to work as fast as their energies are released from war jobs."

• *URBAN MASTER PLANNING*

The California Housing and Planning Association's committee on urban redevelopment, has published a progress report in pamphlet form which is "amazingly readable and stimulating," to quote a competent authority.

The report, which is titled "A Chart for Changing Cities," points out that war's impact on California's urban areas is so pronounced that much-pre-war thinking about urban master planning must be discarded or radically revised. But while war expanded "boom" towns and war depleted "ghost" towns add complications, even before the war "something was wrong with most of our cities, something that had been going on for a long time but which we are just beginning to recognize as a public problem."

Stating the concept of urban redevelopment to be that the evils now recognized in connection with city and suburban life can be avoided or overcome in the future, the report declares that slums and blighted areas should be eliminated and, among other goals, lists these:

"It should be possible for the average-income American family to own a home; such home to embody adequate, not minimum, standards of space and light and comfort in a wholesome environment on terms within the family income. It should be possible for a healthy real estate and home building industry to thrive within the scope of these objectives.

"It should be possible for all Americans, regardless of income, to find opportunity to live and rear their families in a healthy, comfortable and wholesome environment. It should be possible to develop transportation and utility systems which through maximum utilization would provide service at the least per unit cost to the consumer.

"It should be possible to plan a physical relation of places to work and live and play that will achieve maximum production on a firm basis of economic stability and environmental wholesomeness for people of all classes. These things suggest what urban redevelopment typifies today to those who are planning its application after the war."

• *NATIONAL HOUSING PROGRAM*

Last month Hugh R. Pomeroy, executive director of the National Association of Housing Officials, cited a number of important post-war housing policies before the House Buildings and Grounds Committee in Washington, urged adoption of a constructive post-war housing program by the Government; listed the following as some of the National housing objectives: 1) best use of existing housing; 2) replacement of sub-standard housing; 3) additional housing for overcrowded families; 4) replacement of obsolescence as it develops; 5) housing for new families, estimated to average 480,000 a year; 6) more housing for communities with net population increases caused by migration, and 7) maintenance of enough vacancies to insure smooth functioning of the housing market.

To provide adequate housing for all families within 15 years will require production of from 1,500,000 to 1,750,000 new dwelling units a year.

The national objective of adequate housing is possible only through comprehensive local housing programs, on the basis of sound community planning.

• *UNEMPLOYMENT AFTER THE WAR*

A note of warning from industry in the back-to-normalcy movement to insure maximum gainful employment after the war, is contained in the recent remarks of Irving S. Olds, chairman of the board of directors of the United States Steel Corporation, before the Travelers Aid Society in New York. We quote Mr. Olds:

"It is not accurate to contend that the establishment of 'full employment' is the responsibility of industry alone. It is equally the responsibility of every other group in this country—and in that classification I include the representatives of both Government and labor. Unemployment after the war cannot be reduced to the minimum without cooperative and well-designed and friendly effort on the part of all segments of our political and economic order. The productive force termed 'industry' cannot be expected to function satisfactorily in the public interest, if its vital part in our economy is not recognized, supported and encouraged by both our people and our Government.

"Jobs originate with production—with the setting up of new industries—with the free play of economic laws—with the full opportunity for technological development. The primary effort in the post-war period of all elements in our society must be to encourage such production. That cannot be accomplished by hostility to, or disbelief in, our long-established and

(Turn to Page 6)

MASTERPIECES SENT EAST FOR SAFETY ARE RETURNED TO S. F. FOR EXHIBITION

California Palace of the Legion of Honor, pridefully announces return of nineteen of the museum's most valuable paintings, sent to Colorado Springs Fine Arts Center for safekeeping at the beginning of the war. Believing that the paintings can now be exhibited with safety it was deemed advisable to bring them back to San Francisco where they may again bring pleasure to art lovers. Among the masterpieces are the "Portrait of Mrs. Fitzherbert" by Gainsborough, "Tintoretto's Virgin and Child," "Family Group Portrait" by Veronese, "St. Peter" by El Greco, Le Nain's "Peasants Before Their House," the two portraits by Nicolas Maes, the Corots, the Constable, Daubigny, Guardi, Hoppner, Raeburn, Moroni, Bol, Flameng, Fragonard and Largilliere.

Until May 1st, Legion of Honor visitors may enjoy the Arnold Genthe photographs, taken in the early 1900's and which show the narrow alleys lined with markets, joss houses and shops laden with the exotic wares of the Orient, the figures of men with their long queus and padded black cotton slippers, and the women dressed in the traditional garb of China.

Another month of April attraction at the Legion of Honor Palace are some 40 watercolors by the famous Auguste Rodin, also a Rodin sculpture collection. Comparisons are always interesting, and one will be able to see how this master sketched his ideas of "movement" before converting them into sculpture.

AMERICAN SOCIETY OF ETCHERS EXHIBITS PRIZE-WINNING PRINTS

Newly hung on the walls of the de Young Museum, Golden Gate Park, San Francisco, are selections from the 28th Annual Exhibition of the American Society of Etchers. This show, numbering sixty prints in all, confines itself to etching, aquatint, drypoint and engraving, but demonstrates how, in limited media, great variety may still be attained. Collectors will be pleased to know that it is possible to obtain these prints, many of which are excellent examples by leading printmakers of the country, at prices which start at $5.00 and do not exceed $35.00. Most of the works are marked from $5.00 to $15.00.

Among well-known artists exhibiting are John Taylor Arms, Luigi Lucioni, Isabel Bishop, Roi Partridge, Eugene Higgins, Ralph Fabri, Frederick Detwiler, and John Costigan. The exhibit first received showing at the National Gallery, New York. It will remain at the de Young through the month.

NATIONAL HONOR AGAIN CONFERRED ON SAN FRANCISCO ART DIRECTOR

Dr. Grace L. McCann Morley, director of the San Francisco Museum of Art, has been reappointed to the Department of State's Advisory Committee on Art at the National Gallery, Washington, D.C. The only member from the Far West, she has served the State Department on this capital committee since its creation some years before the war, furnishing the State Department with expert advice in her special fields of contemporary Latin American art and museum and exhibition techniques in practice.

Simultaneously with the announcement of Dr. Morley's appointment, David E. Finley, director of the National Gallery of Art, announced the establishment of an Inter-American Office, created by a grant-in-aid from the Department of State, to act as the Government's official clearing house for the exchange of information concerning art activities in the American Republics. Porter A. McCray, formerly with the Coordinator of Inter-American Affairs, has been appointed chief of the newly established office.

EXHIBITION OF AUSTRALIAN ART AT THE SAN FRANCISCO MUSEUM

Under the auspices of the Carnegie Corporation of New York, the first comprehensive exhibition of Australian art ever to be shown in the United States has been sent to the San Francisco Museum of Art by the Commonwealth of Australia to be circulated by the Museum of Modern Art of New York throughout the country.

The exhibition consists of approximately seventy-five items, ranging from bark paintings of the Australian aborigines prior to the arrival of the white man in Australia 150 years ago, to the work of present-day artists. The entire continent, which is about the size of the United States of America, is represented in the oils, watercolors and drawings, eleven bark drawings and one piece of sculpture which have been lent by the National Galleries of New South Wales, Victoria, South Australia, Queensland, Western Australia and Tasmania, supplemented by loans from artists and collectors. The material was selected by a committee which included the directors of the three large galleries in Melbourne, Sydney and Adelaide.

MORE ANENT FAILURE TO EMPLOY CREATIVE ARTISTS AS TEACHERS

In these pages a few months ago we printed an abstract of a thought-provoking letter addressed to the Art Digest from Lester Bridaham, a lieutenant in the U. S. Army, asking why there has been so little progress in placing creative artists in teaching positions in our public schools. Answering the lieutenant's query, T. J. Hunter, an instructor in art at the Arizona State Teachers College, writes:

"The failure of Normal Schools and Teachers' Colleges to recognize creative artists' qualifications for teaching has been matched by the creative artists' snobbishness in failing to recognize teaching as a profession requiring professional training. Too often the creative artist egotistically ignores the necessity of studying educational theory courses, child and adolescent psychology, and certain core curriculum courses such as English, Geography, History, etc., which would enable him to integrate intelligently the art work with the other activities in the public schools. There is not necessarily a correlation between creative ability in painting or sculpture and teaching skill.

"I was a professional artist for 15 years before entering the teaching profession. I am still a professional artist and I am continually fighting for a liberalization of the requirements for teaching certification. Since starting to teach in 1937, I have earned (in spare time) a B.A. in Education and an M.F.A. in painting. I have enjoyed this work and

benefited by it. Our state has a special certificate (certifying a teacher in the special fields of music, art and vocational arts only) which requires a minimum of educational and core curriculum subjects. No artist who expects professional standing as a teacher should object to some professional training."

PAGES' EARLY AND RECENT PAINTINGS EXHIBITED AT PENT HOUSE GALLERY

The Pent House Gallery, at 133 Geary Street, San Francisco, operated by the California Chapter of the American Artists Professional League, has been showing an ambitious collection of paintings (old and modern) by Jules Pages, veteran artist, San Francisco born, and winner of numerous medals including the Cross of the Legion of Honor. Master of drawing, color and composition, Pages has been highly eulogized by Haig Patigan for his successful achievements in the field of art. Some of Jules Pages' painting at the Geary Street Gallery include "Springtime of Life," "Kearny Street," "Old Senior," "Chinese Theater," "Morning," "Latin Quarter," "Towers in the Sun, San Francisco," etc.

California Chapter of the A.A.P.L. is incorporated and chartered by the State as a non-profit, professional and cultural society. E. Bruce Douglas is state chairman.

* * *

The Santa Barbara Museum has received a gift of five water colors and a drawing by contemporary American Artists, together with an oil painting by the Mexican artist, Romirez, from Mr. and Mrs. Dalzell Hatfield of Los Angeles, collectors of French and American paintings and who have an art gallery in the Ambassador Hotel in Los Angeles.

Above: FAMILY GROUP PORTRAIT

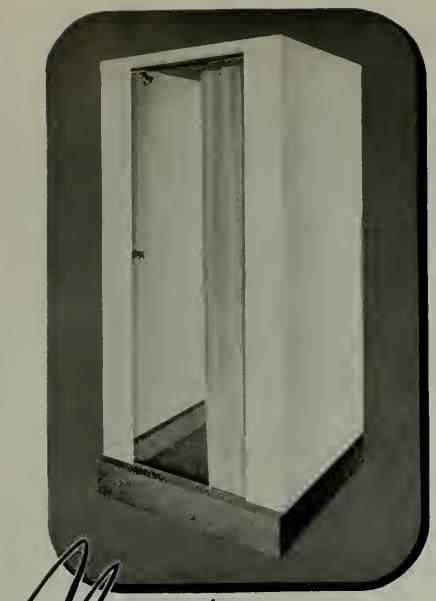
by Paolo Veronese (1528 - 1588). Gift of Mortimer Leventritt.

This magnificent Venetian painting of the Sixteenth Century is included in the group of masterpieces recently returned to the California Palace, Legion of Honor Museum, San Francisco, after an absence of two years.

Left: STILL LIFE Table with Glass and Sugar Bowl

Oil on Canvas by Pierre Auguste Rencil

(S. F. Museum of Art)



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POST-WAR PLANNING

(Continued from Page 3)

thoroughly tried out economic system of free enterprise. Private industry cannot flourish and provide jobs for the many in the face of undue restrictive hampering of its activities at the hands of inexperienced theorists, or by those who may wish to establish a socialistic state in this land of democracy. Our tax laws should be so framed as to permit the ready employment of risk capital in new enterprises, and thus allow increased employment through the creation of new or improved articles of commerce. * * * I have supreme faith in the ability of the American people to solve satisfactorily any problem which vitally concerns the future well-being of our country. Statesmanship of a broad and unselfish character, however, is essential in arriving at such a solution. There must be a closer relationship and a better and more cordial relationship between Government, industry and labor than has been true in the past. All of these groups have an equal stake in the future prosperity and good health of the United States. There must be a way in which all elements in our society can pull together in a spirit of good will and with mutual confidence and respect."

ART NOTES

The recent California Watercolor Society's exhibition at the Riverside Museum in New York, is reported to have made a better impression than the society's first exhibition there a year ago. Some seventy-six pictures were exhibited, regrettably all too few flower pieces, although, according to the exhibition folder, all of the artists whose canvases were shown "live and work in the land of eternal sun and flowers."

* * *

The Board of Trustees of the California Palace of the Legion of Honor, San Francisco, have announced the election of Archer M. Huntington and H. K. S. Williams as honorary trustees of the Museum.

Both Mr. Huntington and Mr. Williams have been generous benefactors of the Museum for many years. To Mr. Huntington the Museum is indebted for the distinguished representation of French art of the eighteenth century, known as the Collis Potter Huntington Memorial Collection, given in memory of the donor's father. Included in the collection are paintings, sculpture, tapestries, furniture and porcelains.

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IN THE NEWS

ART COMMISSION'S NEW PRESIDENT

The recent appointment of Gardner A. Dailey as president of the San Francisco City Planning Commission automatically made him ex-officio member of the San Francisco Art Commission, giving the board an architect-representation of four. At the last meeting of the Commission Edward L. Frick was named president. The two other architects are Eldridge T. Spencer, appointed by Mayor Lapham to fill the expired term of Edward Page, and Mark Daniels, landscape architect and associate editor of Architect and Engineer. Mr. Spencer's term is for five years.

FRICK

Mr. Frick is eminently fitted to assume the responsible duties of president of the Commission. Born in San Francisco, he has contributed his talents to the city's beautification in more ways than one. Following his graduation at the Ecole des Beaux-Arts in Paris, he became designer for Messrs. Bakewell and Brown on the San Francisco City Hall, and still later for Arthur Brown, Jr., in designing the Department of Labor and Interstate Commerce Commission Buildings in Washington, D.C. Mr. Frick has also worked with Mr. Brown on buildings at Stanford University and the University of California, Berkeley.

Upon the death of George W. Kelham in 1937, Mr. Frick became Chief of the Division of Architecture of the Golden Gate International Exposition. At present he is one of the architects for the Oak Knoll and San Leandro Naval Hospitals. Besides being president of the Art Commission he is a member of the Northern California Chapter, American Institute of Architects, and the San Francisco Art Association.

THE WURSTERS RETURN HOME

William W. Wurster and Mrs. Wurster (Catherine Bauer) are back in San Francisco again, Mr. Wurster to renew his architectural practice, Mrs. Wurster to resume her planning activities, writing, lecturing and functioning as vice-president of the National Public Housing Conference.

The Wursters spent more than a year in the East with headquarters in Cambridge, Mass., where the versatile architect attended Harvard and did some intensive studying and research work.

In a talk before the New York Chapter, February 17, in celebration of its 75th birthday, Wurster said some things about the Institute that this magazine would never dare say.

Referring to the part the A.I.A. is (or is not) playing in education for architecture, he said:

"At every turn I hear the young people speak with dissatisfaction of the A.I.A.—how moribund it is—how reactionary—how it clings to old husks and outworn forms. And I agree with them and go a step further, as is always the privilege of a member; and feel that things are very wrong indeed. You may answer me and show me charts and laws which look well on paper but the truth is still the same—the **essence** of our organization is not generous and big.

"Now, I believe in one organization and I have belonged to the A.I.A. since 1927 and I intend to stay a member, but I do know that things must happen differently in the future or we will continue in our diminishing importance. It is all too easy to attack without constructive suggestions, so let me list some very specific things which I think should receive consideration.

"No gold medal for his contribution to architecture has been offered by the Institute to Frank Lloyd Wright. Whether he would accept it or not is of small importance; whether you agree with him, his political life, or his personal life is also of small importance. But we, as an organization, ought to be large enough to take the generous action. I made inquiry of this by letter, and the answer was so niggling as to the exact procedure that there was no point in going further.

"We talk about the fact that the public doesn't know of us, our abilities, our competence, our services. Very well then, why not meet it in a modern way? Years ago the household word for an ogre was John D. Rockefeller but this was changed to one of benefaction by one Ivy Lee who knew just how to place his client before the public. The A.I.A. has some 3000 members and I would be happy to be one of the 3000 to pay $10 per year—total $30,000—for a really top-notch public relations agency. There must be a positive, progressive program to publicity.

"Another thing: We should look into this piling up of state-registration rules. What is happening is that the younger men are being kept out, and I fail to see any raising of the standards of architecture by the present systems. In California it has raised the average registered architect's age to over 50 years. Why shouldn't we have a way of encouraging the young men by giving them licenses with a simple registration? If you want to stiffen the examination for structural work—well and good. But why burden every architect with technical, finite formulae which he will never use? I'll warrant that you are all like me and have never designed a beam in your life. God help the public if I did! Far better that we know **where** to go to have it properly designed.

(Turn to Page 10)

SUMMARY OF ARCHITECTS' VIEWS ON FLUSH VALVES FOR POSTWAR SCHOOLS

What are the trends in the selection of flush valve combinations for "V" day and postwar schools? To obtain a reliable answer to this question, Watrous recently prepared a special ballot sheet which was sent to a list of 309 architects having wide experience in school work.

The diagrams below summarize the results. Viewpoints of those replying are also analyzed briefly at right.

Should you have further thoughts on this subject, or should you desire more complete information on any phase of the results, we shall be pleased to hear from you.

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Flush Valve Application Data

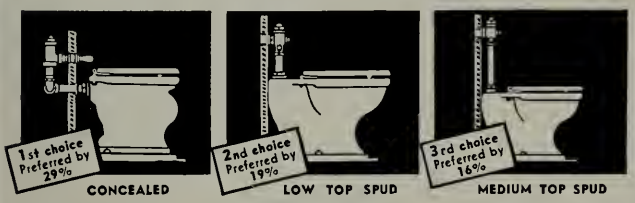
SCHOOLS

Compiled by the manufacturers of Watrous Flush Valves

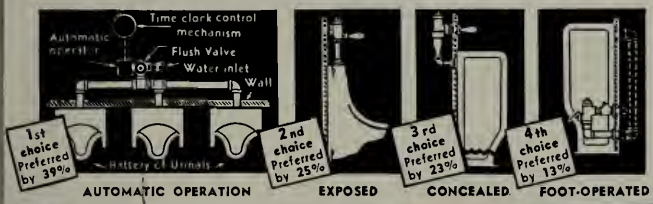
RESULTS

FLUSH VALVE COMBINATIONS FOR CLOSET BOWLS

Votes were cast on the question: "Which combinations do you believe offer the most advantages for use in postwar schools?"



FLUSH VALVE COMBINATIONS FOR URINALS



●★ NOTES ON RESULTS

Concealed Flush Valves for closet bowls were far and away the favorite where appropriations permit their use. Typical comments were: "When we have utility space back of the wall, we prefer concealed flush valves." "Where funds permit, the concealed valve is unquestionably the best type."

Foot-Operated Flush Valves showed remarkable gains. While individual combinations did not rank at the top of the list, the total for foot-operated types was a close second to the concealed total. Typical comment: "Foot-operated valves are more sanitary and are easier to operate."

Top-Spud Flush Valves stand high on the list due to their economy, wide adaptability and ease of servicing. Typical comment: "The selection of a flush valve depends largely on local conditions and above all on the amount of money available. Exposed valves can be adjusted and taken care of by the average janitor better than concealed."

Seat-Action Flush Valves finished in 4th place. Widely divergent views were expressed on this subject. Typical comments: "Seat-action closets in schools will keep closets clean." "About seat-action type causing forgetting at home, check-ups have shown this reason to be theoretical."

Automatic Operation was far out in front for urinals. Typical comment: "Automatic operation best when 4 or more urinals are in a battery."

Silent-Action Flush Valves were preferred for schools by a 3 to 2 margin.

. . . V-MODEL WATROUS FLUSH VALVE FOR WARTIME PROJECTS

Sweet's Catalog File for 1944, Sec. 21, Catalog 9, covers this "V" model for wartime applications and also the complete line of Watrous Flush Valves for postwar use. Or write for Bulletin 858-W and Catalog 448.

Watrous Flush Valves

A BUILDING IS AS YOUNG AS ITS ARTERIES, TOO

Senility affects buildings as well as humans—and in both cases the trouble is likely to result from insufficiently elastic arteries.

In homes and commercial buildings, alike, the arteries that carry electricity limit the usefulness of the structure if they are not capable of carrying sufficient power for continually increasing needs.

All indications point to tremendous new demands for electricity in the postwar era. Architects and builders must provide wiring for adequate and convenient service on a scale never before known if their work is to withstand obsolescence.

Assure the long life of the postwar homes and buildings you plan by equipping yourself with information on the latest developments in wiring.

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IN THE NEWS

"Why are conferences and discussion groups springing up all over the country quite separate from the fabric of the A.I.A.? The answer is that they feel the cold, unsympathetic quality of our organization. Often they would be strengthened by having the use of the facilities of the A.I.A.; in turn the A.I.A. would have the vitality of this group."

RADIO THEATER COMPETITION

An architectural competition for a radio theater is announced by WGN-Chicago, and for which prizes amounting to $10,000 are offered. The theater is to have a seating capacity of 2,000 and will be the focal point of a new building, also to be financed by WGN. The site is south of Tribune Tower, overlooking Michigan Avenue and the Chicago River. Basic requirements of the theater competition are, 1) acoustics, 2) utility, 3) visibility, 4) beauty of design. Prizes will be divided as follows: First, $5,000; second, $2,500; third, $1,000, and 15 prizes of $100 each. Further details are expected to be forthcoming shortly.

ARCHITECT GIVEN EXECUTIVE JOB

Donald M. Crooks, architect, for several years sales and production executive of western prefabrication firms, has been named midwest representative for Douglas Fir Plywood Association with Chicago offices.

CROOKS

Crooks succeeds David S. Betcone, now eastern representative for the fir plywood industry at Washington, D.C. A third association field man, Joseph Weston, is located at Los Angeles.

Crooks has been associated with manufacture and marketing of precut and prefabricated structures almost continuously since 1912. Until recently he was in charge of engineering for Hayward Lumber & Investment Co. of Los Angeles and helped develop their present house manufacturing plant. He held a similar position with Gorman Lumber Sales Co. of Oakland, Calif.

Crooks at one time maintained architectural offices in Oakland and Portland, Ore., with much of his work in the residential field. His designs include several plywood structures apart from homes or buildings.

At Chicago he will serve as a consultant on applications of plywood in the industrial and prefabrication fields principally.

AWARDED CERTIFICATE OF MERIT

At the biennial presentation of architectural awards by the Washington Board of Trade, Messrs. Eggers and Higgins, architects, of New York, were awarded

(Turn to Page 13)

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IN THE NEWS

a certificate of merit for excellence of design of the Jefferson Memorial in Washington which was dedicated last April by President Roosevelt on the 200th anniversary of Jefferson's birth. Otto R. Eggers of the firm accepted the certificate which was presented at a ceremony at the Mayflower Hotel in Washington. The presentation was made by Colonel Charles W. Kutz, Engineer Commissioner of the District of Columbia. John Russell Pope (since deceased), a partner in the firm, participated in the design.

The Jefferson Memorial, overlooking the Tidal Basin from West Potomac Park, is a modified form of the classic Pantheon which Jefferson himself, an architect as well as statesman, considered the perfect model for a circular building. The memorial is constructed of Imperial Danby marble, white with a faint brownish clouding, and rises 96 feet above the floor. The north portico faces the Washington manument and the White House.

BRAZIL ARCHITECT PRAISES U. S.

Following a six-months' coast to coast tour of housing and city planning projects in the United States, Henrique E. Midlin, noted Brazilian architect, was interviewed at Washington for his impressions. He emphasized our boundless imagination and ingenuity and the kindliness and imagination of North Americans everywhere.

The Brazilian architect praised the skillful manner in which United States architects and builders handle projects of great size and generous scale.

Brazil, he said, has sponsored the construction of several scientifically planned, self-contained communities, equipped with clubhouses, nurseries, schools, gardens, parks, hospitals, markets, shopping centers and recreation areas.

Like other United Nations, Mr. Midlin said, Brazil is concentrating on her all-out war effort, and diversion of strategic materials to military needs has tended to slow up non-military construction. Brazilian factories have recently begun to manufacture frosted glass and are rolling iron for reinforced concrete construction, but restrictions on the importation of pipe and transparent glass, which are not manufactured in Brazil, make quick completion of the republic's housing program impossible until after victory has been won.

BILL TO END COST-PLUS BIDS

A bill to replace the present cost-plus and other systems of contracting for public construction by a system of negotiated lump sum contracts, recently introduced in the House of Representatives by Senator Wasielewski, has been referred to the Judiciary Committee. The bill is intended to protect the Government from profiteering by substituting a simplified system of auditing and adjustment of fees. It sets up a formal process of renegotiation of various construction contracts and acts as an aid to such process. It provides a means of removing many of the causes of unfair-trade practices in public construction which many representative contractors have been endeavoring to wipe out.

The bill provides a triple check of costs of every contract negotiated under it; that is, first, an estimate of the work to be done is established before a general contractor is selected; second, a check and approval of the contract and sub-contracts must be made by the ratifying committee before the work is begun and finally, third, the ratifying committee makes a complete audit of the books of the contractor and subcontractors before final payment.

The bill was evolved by Frederic W. Ward of New York.

SAN FRANCISCO VS. LOS ANGELES

Last month Sir Ernest Simon of the British Ministry of Works and Planning, entertained the London Architectural Association with a graphic account of his recent tour of the United States. Among other things, he commented that "one difficulty in talking about America is that it is not one place; there are forty-eight separate States, all of which have complete power in matters of town planning and building. There are no Federal building laws. It is therefore impossible to generalize about America, beyond saying that certain habits do tend to prevail."

Of San Francisco he had this to say: "When you get to the Far West you do begin to find gardens. San Francisco is a crowded town built on a promontory with two superb bridges, the Golden Gate Bridge, with a span of over 4,000 feet, and another about eight miles long, connecting the city with the mainland.

"It has lovely suburbs on the mainland, and the great problem of this crowded central area, now that these two bridges have been built, is how to get the "commuter" to pay his share of the taxes.

"They had an earthquake in San Francisco in 1906, followed by a tremendous fire. They had a beautiful plan for the city, just like the Wren plan for London, already prepared, but after the earthquake and the fire they said they had not time to follow the plan, and so they rebuilt the city with the old squares just as they were before. It illustrates the incredible rigidity of this gridiron plan which is followed in America. San Francisco is hilly, but even in crowded parts of the town there are gradients of 1 in 10 which are very dangerous.

"One thing that they did do when they rebuilt the town was to provide for a civic center. Almost every city in America now has something impressive in the way of a civic center."

(Turn to Page 42)

Upper Picture: Pioneer train, 1862. Below: Logging by oxen power, near Portland, 1880; view of Douglas fir logging area. Note blocks of seed trees left to insure reproduction. Typical Portland lumber mill. Sixty per cent of industrial payroll of Pacific Northwest in normal times is produced by forest industries.

PORTLAND'S FUTURE IN CITY AND REGION

By ROBERT TYLER DAVIS

The ever-growing public interest in planning for the future, which in Portland recently reached its first climax in the "Moses Plan," led the Portland Art Museum and the Portland Library Association to pool their resources for a concentrated educational program of city and regional planning, in the form of an exhibition at the Art Museum, "Our Future—in City and Region," and a series of lectures and panel discussions correlated with the exhibition.

Mr. Charles Eliot, who was the Director of the late National Resources Planning Board, and Miss Catherine Bauer, vice-president of the National Housing Conference and consultant to the Federal Housing Authority, were invited to present formal lectures to stimulate interest in the exhibition which opened April 15 and will run through part of May. The two objectives of the complete program are to establish in the mind of the community the need for a planned development, and to demonstrate what is involved in the process of planning.

The City of Portland is about one hundred years old, in the heart of the region first explored for the United States by Lewis and Clark. Before the city was founded the focus for the region was the post of the Hudson's Bay Company at Fort Vancouver on the north bank of the Columbia River. The early settlers of the region were the employees of that trading company who retired to the fertile farming lands of the Willamette Valley.

Portland itself was founded and has grown largely under the guidance of New Englanders. Its growth was very slow and steady, as befitted a community of merchants. "Soundness" is a word still in wide use to describe the development of the city. It is the highest form of praise that the old inhabitants know of for any project.

However, with the establishment of three Kaiser shipyards in the immediate environs, and the expansion of other firms to take care of Navy contracts and accessory war needs, the city has had a sudden influx of population. Many problems have grown out of this development, which is still eyed with skepticism as to its ultimate value by the stable and conservative population. Yet the war has only served to accentuate a phase of growth which was long

overdue for both city and region. Portland had previously been a shipping point for agricultural products, while the region was maintained by what planners call an "economy of extraction." Industrialization, long expected, has arrived speedily and in an acute form.

The problems of the situation were publicly dramatized several months ago when a number of city and county groups invited Robert Moses to come out, survey the situation in the city and lay out projects which would provide immediate post-war employment on constructive work. There was much ado over the $100,000 plan which embodied the recommendation from Mr. Moses and his staff. The "Moses Report" is not, however, the first program that Portland has had laid out. Two previous schemes for the "city beautiful" on the banks of the Willamette are still gathering dust on the shelves of city offices. The need for planning is now so much more evident to so many more people that the Moses Report has served to focus attention on the necessity for immediate action.

In preparing an exhibition project of the subject much of the problem has been to present planning as dynamic process guiding the growth of the city in all its aspects. In fact the planning of the entire joint venture of the Library and the Art Museum has in itself been an education in planning. An Advisory Committee was organized, which was really called on for advice. The exhibition itself is the work of the City Planning Commission, the local Chapter of the American Institute of Architects, and the various Federal agencies. All the groups concerned have been doing a great deal of planning in their own fields, but this is the first occasion on which all of them have been called upon to cooperate on a single venture.

PANELS DEPICT HISTORICAL HIGHLIGHTS

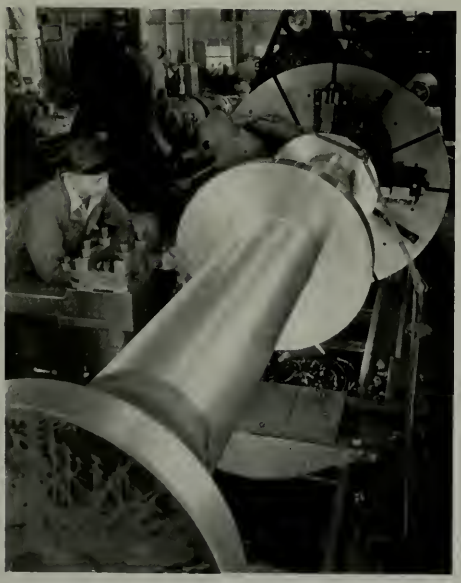
The exhibition is installed in an entrance hall and three large galleries of the Portland Art Museum and consists of an historical introduction and three main divisions. The introduction is presented in six panels, each with a map and eight photographs covering a twenty-year period in the history of the growth of the region and the metropolitan area. This unit, as well as several others, was designed so that it might form a separate exhibition to be circulated later to schools and colleges.

In the first gallery are the old city plans, with indications of what they were able to con-

TRANSMISSION TOWER, NEAR PORTLAND, OREGON

Above: Bonneville Dam showing fish ladder in foreground.

Below: Portland has no slums but this photo shows there are blighted areas that need post-war attention.



Power Lathe, an important tool in the development of Portland's natural resources.

DECK HOUSE ASSEMBLY IN ONE OF PORTLAND'S GREAT SHIPYARDS

Many problems have grown out of the development of this industry since the war began. Its ultimate value is a matter of conjecture by the stable and conservative population. Some believe, however, that the wor has only served to accentuate a phase of growth which has long been overdue.

There are three Kaiser shipyards, like the one pictured here, in the immediate environs of the city of Portland.

Upper Right: A residential street in Portland, The majority of its homes are architect-planned with a style reminiscent of the New England States.

Below: A typical farm unit showing rural use of electric energy.

tribute to the pattern of the city's growth. These are followed by a diagrammatic city plan which presents the general theory of planning. Emphasis here is put on the creation of community units, each with its own services, and each bounded by main traffic arteries.

With this background in mind the visitor is led to the second gallery where the particular problems of planning for Portland and its metropolitan area are visually presented in two separate ways. Along one side of this large gallery are the charts and studies being made by the present City Planning Commission, under the direction of Arthur McVoy. The series culminates in a relief map of the metropolitan area which indicates the progress being made on a master plan. The same material is translated into terms of human activity on the opposite wall where there is a series of eight panels of photographs.

This series portrays planning from the point of view of the man in the street—the average citizen. People themselves, population trends, the racial structure with what it brings in the way of minority problems, and characteristic employments of various groups are shown first. After the job, his home is important to a man, and housing is the subject of the next panel. Here the movement to commercially develop suburbs and the subsequent blight of large areas in the center of the city is emphasized. Portland has prided itself on having no slums, but here is pointed out the characteristic Portland form of slums and blight.

Recreation is an important concern of the average man, and the local achievements in setting aside recreation areas in various parts of the city are illustrated. For the most part these areas are undeveloped. Their usefulness can be immensely increased by integrating them with an over-all plan, which also indicates that their number should be increased. General community recreation is also considered, with particular emphasis on the water-front recreation which was, until 1920, an important part of Portland life, but which has almost completely disappeared in recent years.

MOSES' PLAN IS GIVEN RECOGNITION

There follow presentations of education, of religion and culture, of commerce and industry, and of transportation. In the last two of these the projects recommended by Mr. Moses for an enlarged freight distribution center and for traffic organization receive particular attention. The final panel in this human series is devoted to problems of the Civic Center. The great collection of buildings necessary for city, county, state and Federal offices is always an imposing group. At the same time it is an explosive subject as far as the taxpayer is concerned. By giving the dates of the public buildings now scattered through the downtown area, and even beyond, it is shown that fifty years ago not one of them was in existence. It is hoped that the taxpayer will thus be convinced that by planning beforehand, the buildings to be erected in the next fifty years could be put in some reasonable relation to each other, and that the tax dollar will be better spent.

In the last gallery the visitor is greeted by a huge relief map of the Pacific Northwest, picturing the resources of the whole region. In planning for Portland it is impossible not to consider the resources, activities and potentialities of the region, which are, after all, the reason for the city's existence. Agriculture, and particularly forests are of vital concern, for until recently forty per cent of the exports of the region was some form of wood product. Looking to the future, and keeping in mind the abuse of our forest resources, the emphasis here is on a more complete use of all that is cut from the forests, and on new kinds of plantings which will provide material for the large number of new wood fiber products.

The growth and potential growth of industry, the mineral resources, the fisheries, all have their separate story, and finally there is the exciting tale of hydroelectric power. The Pacific Northwest has within its river systems about sixty per cent of the potential water power of the entire nation. This power is doubtless the key to the region's industrialization and its future growth.

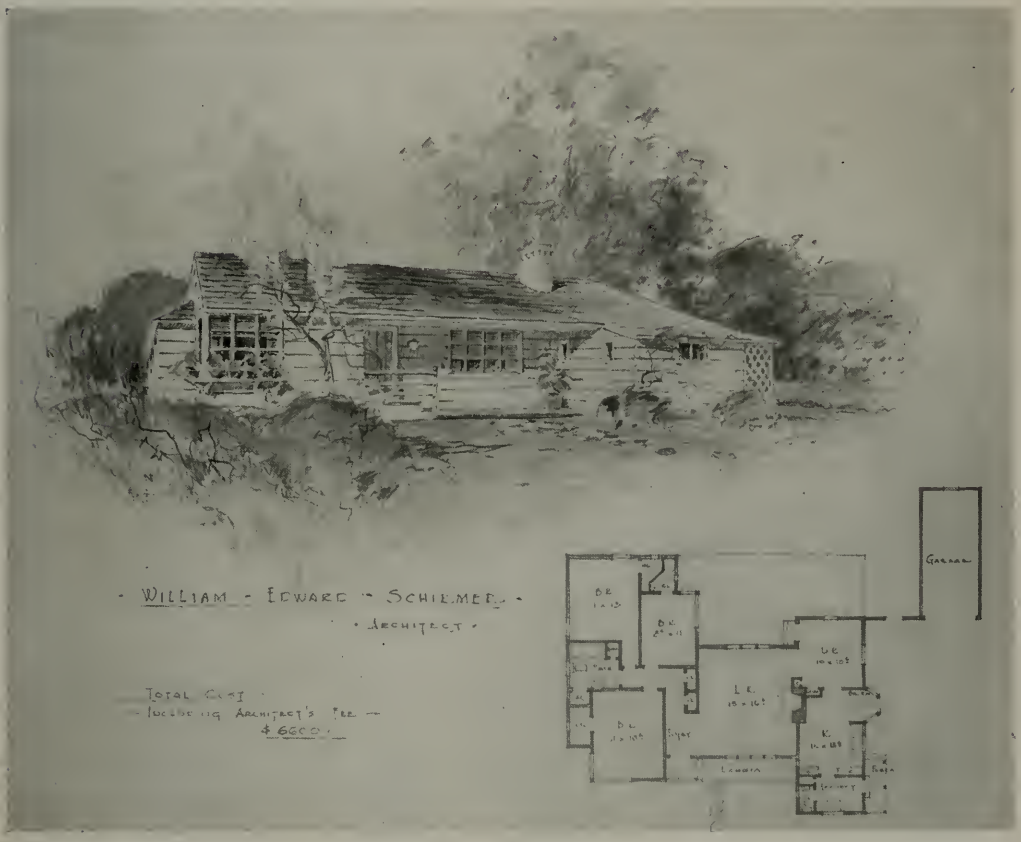
Inevitably the story of the region is concerned with potentialities and, even more than the city, it looks to the future. Both city and region are, at this moment, deeply engaged in production for war. But this must be considered

as part of the problem, and how much or how little of war activity should or will remain for the future is part of the post-war planning.

PRACTICAL SIDE OF THE ART MUSEUM

A number of people have asked why an Art Museum should be so concerned with planning, when traditionally it is interested only in painting, sculpture, architecture and the decorative arts. These are the same people who think of works of art as luxuries and non-essentials. For an Art Museum, as for the artist, the community itself may be a work of art, planned in all of its relations for the highest development of each of its members. For an Art Museum, works of art are not luxuries, but practical—practical in the realm of ideas and the spirit.

The Public Library joins with the Art Museum in emphasizing the importance of ideas, particularly at this time when ideas seems to be discredited in many quarters. Both institutions believe that the best thinking should be at work, and the best thinkers collaborating to produce the life for which we are fighting, the life that can only succeed if it is firmly grounded in the realm of ideas and in the hearts of its citizens.



DESIGN FOR A ONE-STORY RUSTIC HOUSE WITH THREE BEDROOMS

GENERAL VIEW OF VALLEJO COMMUNITY HOSPITAL, VALLEJO, CALIFORNA
There are 15 buildings covering approximately four acres of its twenty acres of ground. Note safety ramps at end of each ward building.

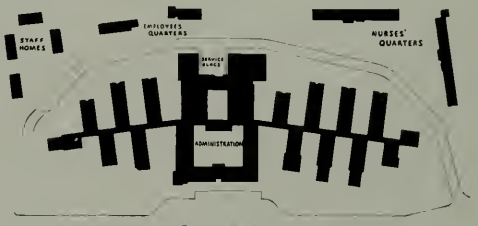
VALLEJO COMMUNITY HOSPITAL

Impact of war on a community which finds itself suddenly thrown into a maelstrom of defense activities with its normal population of 25,000 swollen almost overnight to a chaotic 100,000, creates many perplexing problems. Not the least of these is the health problem.

It was in just such a situation that Vallejo, California, found itself in the first months of 1942. The many war industries clustered in and about the city had brought thousands of inmigrant population, with new thousands every month. With the normal increase in industrial accidents attendant to such an expansion program, the fear of epidemic outbreaks and a war-time increase in birth rate, an immediate and sizable enlargement of hospital facilities was plainly indicated.

Vallejo's citizens and health officers were prompt in realizing the necessity for an adequate hospital. Through their presentations authorization was obtained under the Community Facilities Act for the construction of the Vallejo Community Hospital by the Emergency Operations Unit of the Public Buildings Administration of the Federal Works Agency.

Plans by Douglas Dacre Stone, architect, of San Francisco, were accepted and a contract for the construction of a group of hospital buildings was awarded on a competitive bid to Barrett & Hilp of San Francisco, for approximately $1,100,000. Recalling this firm's after-



PLOT PLAN

Pearl Harbor accomplishment in completing a Federal project of 5,000 workers' homes in Norfolk, Virginia, in 180 days, it is interesting to note that it was this same efficient organization that built the Vallejo hospital.

TWENTY-ACRE SITE, MAY 1, 1943

Normal capacity of the Vallejo Community Hospital is 250 beds, although an additional 100 emergency beds may be accommodated. Grounds, including some twenty acres, are located about one mile north of Vallejo. All buildings are frame, one-story construction and of "semi-permanent" nature.

The main hospital group literally sprawls out over four acres and consists, besides the administration and service buildings, of fifteen

MODEL OF VALLEJO COMMUNITY HOSPITAL, VALLEJO, CALIFORNIA
Douglas Dacre Stone, Architect, and Lou B. Mulloy; Barrett & Hilp, Builders.
Hospital has a normal capacity of 250 beds with provision for an additional 100 emergency beds. All buildings are wood frame and semi-permanent construction.

MAIN ENTRANCE VALLEJO COMMUNITY HOSPITAL
Simple but effective treatment along modern lines.

ENTRANCE LOBBY VALLEJO COMMUNITY HOSPITAL, VALLEJO, CALIFORNIA
Like a sun-porch—cheerful, roomy and lighted by ceiling-high windows.

structures of various sizes, contained in two wings. All are connected by corridors.

There are also four duplex houses for the hospital staff, two buildings in which 100 nurses are housed, and two buildings to accommodate the 40 other employees.

Included in wings of the main hospital group are two isolation wards, a psychiatric ward, four surgical wards, emergency ward, maternity ward, pediatric ward, two medical wards, a huge surgery and obstetrics room. There is also a complete dental surgery and pharmacy. The main buildings, besides offices, include a medical library, conference room, doctors' lounge, social service quarters, and the nurses' rest room and lounge. In the service building are a large and completely equipped kitchen and laundry.

While frame construction prevails throughout, every fire prevention precaution has been taken. Fire walls are installed between each ward and its connecting corridor. As a further safety measure, each ward building is provided with a ramp leading from wide doors which, in an emergency, would easily permit beds to be rolled out without disturbing the patients.

Wide lawns surround the hospital, adding to the general appearance of the buildings and eliminating the dust nuisance. All roadways excepting the emergency entrance are placed beyond the lawns in compliance with the standards of the U. S. Public Health Service.

Use of the modulus system of dimensions throughout is credited with the comparatively low $5,000-per-bed cost of the Vallejo hospital.

Barrett & Hilp, besides the actual construction, were called upon for unusual services in providing some $200,000 worth of hospital equipment. Not only did this call for furnishing the highly complicated outfitting of the surgeries and treatment rooms, but also furniture and other equipment such as beds and mattresses.

The Vallejo Community Hospital has won unstinted praise from every standpoint by the United States Public Health Service. It was formally opened for service on March 20.

"CALIFORNIA HERE I COME"

An Eastern Architect's Impressions

by SEWALL SMITH, A.I.A.

California has long seemed to me the spearhead of the best architecture in America. This may be because I have believed the magazines. For they, to a large extent, have leaned so heavily to West Coast houses that you can't figure why their very offices haven't slid right over to the western seaboard. It would save editors' time running around; perhaps they'd even get their issues out during the month they're supposed to. Anyway, is it any wonder California is becoming a mecca for architects? I'm one of those fellows—their number is probably legion—who has pipedreamed for years about seeing at first hand and in detail what you Pacific Coast architects are doing, with the secret aim of perhaps staying in your sun-baked bailiwick. Thanks to some lucky breaks, I am at least here, where our family finds itself only half as frozen as it was in New York State, and our two little gremlins have nonchalantly thrown away their snowsuits and even go naked at noon, if we don't watch 'em.

Having been in California three full months, I am, of course, a "Recognized Authority," and will speak henceforth as such. Joking aside, any resemblance between some sort of comprehensive treatise on the architecture of California and the following is purely coincidental. We did what we could with what gas coupons we were lucky enough to have.

Laguna Beach makes a happy introduction to California. Being forewarned with Max Muller's "It Must Be the Climate," we gave San Diego a swift, if circuitous, go-bye. (My apologies, S. D., if Muller is seeing you with a jaundiced eye.) Laguna Beach, to one not inured as yet to California beauty spots, has a remarkable setting—one that any town in the world might envy. It's dramatic headlands as they alternate with sweeping curves of sand are most photogenic. No wonder it, like so many California towns, started as an artist's paradise. Parenthetically, it is apparently much easier for a town to be an artist's than an architect's paradise. Laguna Beach in normal times has more smart architects per square inch than any place I've ever visited; seven men for a peacetime population well under ten thousand, where in my old home town, Niagara Falls, the magic number of seven took care of one hundred thousand architecturally - needy people. (Were we smarter?)

The newcomer is keenly aware of the cleanness of California towns. That cleanness has, of course, led to successful use of all manner of pastel shades, such as seldom if ever adorn the buildings of the grimy East. Laguna Beach is no exception, and it was fun to see here as elsewhere a natural delight in color.

If Route 101—even in wartime a deathtrap

of a highway, in spite of its winding character —could somehow have decorously skirted around the town, or even have ducked under it, instead of rudely plowing through the heart of it, we would have felt better about the future of the place (not to mention its scurrying citizenry) as a perfect town for homes. Wanted: a good city planner.

Some of the main street buildings of Laguna Beach are, of course, too exhibitionistic. That ye - olde - shoppe atmosphere looks as though she's out-Hollywooding Hollywood. It reminded us unpleasantly of times we'd been stung in some cheap though charming English towns. Most of the newer homes, however, around well-named Emerald Bay—judging as best one can from the exteriors—are as up-to-date as tomorrow's sunrise, and almost as alluring. Splendid modern; not modernistic. The work of Manfred DeAhna, for instance, is in my opinion so topnotch that you inevitably

" . . . reminded us of times we'd been stung in England."

find yourself comparing it with William Wurster's early period. There is a neatness and an easy grace in the way the houses are fitted into the peculiarities of their sites. DeAhna's detail, while not wiry, is crisp. It is fresh, contemporary work as full of an indigenous charm as it is lacking in ostentation. It deserves to be known far and wide.

Los Angeles was too much of an octopus of a city for us; we forgot our search for an architect's Shangri-La and were mere sightseers, as we drove merrily through her many residential areas.

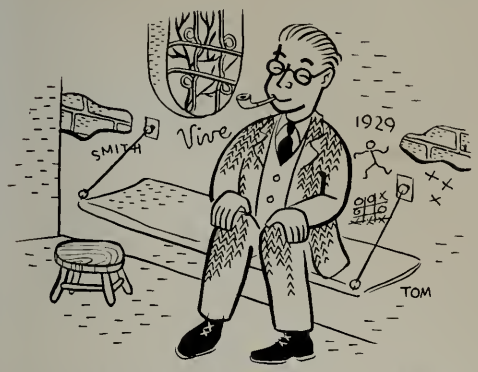
Santa Barbara hit us squarely between the eyes; it was love at first sight. No longer did we toy with the notion of becoming "Lagunatics." (The only way to put aside the lure of one spot in California is by going on to the next, preferably with a one-way ticket or a limited supply of gas coupons!) The perfection of the setting and the climate, the highly developed community and cultural patterns that even a stranger could perceive, all surely intrigued us. The old world charm which graces Santa Barbara's architecture, however, is piled on just a bit too thick for contemporary taste, it seemed to us.

Let's take the famed County Court House, inasmuch as it is the epitome of Santa Barbara's architecture. If ever there was architecture that is lush and sweet, it is here. Beautiful! Like Mendelssohn's Violin Concerto. But such fantasy and caprice belong to an age more idyllic than the nineteen forties. The Court House is as incorrigibly romantic as a schoolgirl. But it isn't as genuine. Today we can't honestly build walls five feet thick. This is architecture by men who at heart are imaginative stage set artists (William Mooser and Son). Though we might do well to retain—if we can —their passion for beauty (even modernists are not immune from the romantic spell), we must blend with it the functionalism and efficiency which today are more essential than ever before. It's a long way between offices in the Santa Barbara County Court House, and when you're in them you are conscious of inadequate light.

Nonetheless, it was a joy to see the style so capably handled, after putting up with such godawful attempts at "Spanish mission" as had bestrewed our way for a thousand miles. I can think of no place where I'd rather fall into the clutches of the law than in Santa Barbara; it would be a real pleasure to spend a few dollars or a few days in her greatest extravaganza, the picture-book Court House.

As anyone who's been to Santa Barbara in recent years knows, she has begun to shake her-

self loose from the Spanish influence. (Doesn't this date from that shake-up that we dare not call an earthquake?) She isn't as free of the yoke as the towns further north. But a few of the newer homes of the San Roque and the



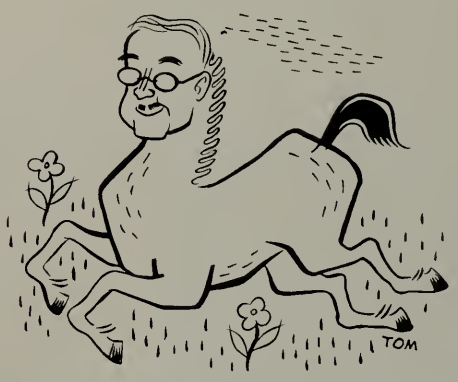
". . . a pleasure to spend a few days in Santa Barbara's picture-book courthouse."

Hope Ranch areas of Santa Barbara showed the same trends we found later so predominant on the Peninsula and the Orinda and Lafayette sections of the Bay Area, though they are more pronounced in the latter.

With abandon comparable to a Prokoliev symphony, these homes employ classic motives or any others that come readily to hand. You can see that their plans likewise are of the nineteen forties. By an appropriate use of materials, combined with a knowing way with forms, they manage to HAVE style without in any sense being slaves to a style. Shocking to the classicists, the purists? Yes, but nonetheless that quality, I believe, is the very essence of good architectural design, providing it expresses today's concept of plan. For, of course, plan is basic, the very core of modern architecture worthy the name.

Both Monterey and Carmel gave us an impression of spottiness, with a surprising amount of work that seems mediocre. Surprising to the stranger for a town as famous as Monterey, and for another as art-minded as Carmel. Maybe that's it, in Carmel's case. Like parts of Laguna Beach, she shows the indelible imprint of the artist or even the pseudo artist playing architect. Sometimes the results are amusing, sometimes just unfortunate, occasionally charmingly naive. Little of the work there seemed to us genuine or contemporary; much of it obviously felt no responsibility for making the most of climate and view—which I'd thought a byword of all present day California architecture. It is quaint and colorful, for the most part. Might be better if artists would trade an architect a good painting or two for a set of plans. Or contractors stick to their own jobs. I'll admit we were slightly annoyed at Carmel. She wears a summer colony air about her, and displays an aloof indifference to the stranger's plight. She makes it as tough as possible, under the guise of art, for him to find his way around. Even an old-hand taxi driver was stumped (at our expense) in a nighttime search for relatives of ours, that in any other town would have been a pushover. All is forgiven, however, after one submits to that scenic jaunt, the Seventeen-Mile Drive.

When architects truly carry on the tradition (as against aping the effects) of the men who achieved Cape Cod, or any other successful style, I believe they inevitably build in and of our own day. They don't need to feel they must reject all the past has to offer, on the one hand; nor do they have to give two cents for stylistic accuracy, or for tried and true construction methods if they can concoct a better way. Their approach is logical, not archeological. Accepting the charm of the old as a heritage, they use it with today's concept of plan, today's materials and today's methods of procedure. Around Palo Alto and later in the



". . . the spur that sends Leslie Nichols off to a sprightly gallop."

Orinda and Lafayette areas, we saw splendid work that well illustrates this point of view. On the Peninsula, Architect Leslie Nichols has injected both elegance and punch into a free handling of traditional forms. His interiors, as much as the exteriors, are well-studied with pleasant vistas from room to room to outdoors. He uses pleasing correlation of color. To my mind, Nichols is at his best when given entire freedom by his clients. Loosening of the reins is the spur that sets him off to a sprightly gallop, whereas some of his well-known colleagues show up better, it seems to me, when they are perhaps slightly restrained by a tradition-loving client. There is such a distinction and a sureness of touch in the early work of Gardner Dailey, for example, (whatever the source of the restraint) that you almost tip your hat as you pass one of his masterpieces.

Try as I may to confine myself to recording impressions of homes in the smaller towns, San Francisco just will not be left out. As a city it has made an impress upon me unequalled by any city in this country or abroad. I imagine most strangers react this way to it. As one approaches it for the first time from Skyline Boulevard, he is amazed. First, because it is fantastically placed on a family of lusty mountains; then because sprinkled through these giant knolls are long strings of white houses clinging to the slopes well up towards their peaks. From a distance this, it seems to me, resembles nothing so much as confetti thrown madly around by some playful giant. The very cleanness for a city of such size strikes the stranger forcibly, until the enchantment of distance breaks down somewhat upon closer scrutiny. The view of the downtown area with its clustered skyscrapers as you see it from Twin Peaks is as beautiful and breathtaking as any panorama in the world. Equally breathtaking to the newcomer is the process of driving up and down those canyon-like slopes that masquerade as streets.

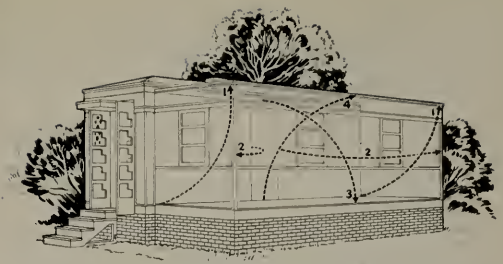
San Francisco reinforced an earlier impression of California's unblushing pride in bathrooms. Shouted on the housetops in glittering profusion is this peculiarly American symbol of culture. Far from toning in with their background, these plumbing stacks are usually painted silver against red tile or dark shingle roofs. With a little practice you could estimate the cost of any house by the number of stacks it boasts.

In its freedom from style-consciousness, that whole tract of land east of Oakland beyond the tunnel, covering roughly forty-five square miles, is almost unique. There is nowhere to my knowledge such an extended area so nearly free of the old ecclectic attitude, which somehow in the history of architecture has come perilously close to supplanting the rightful concept of the architect as a genuine master builder, not a dealer in fashions or a decorator of exteriors.

The best work of Orinda and around Walnut Creek and Lafayette is the highly provocative output of architects with ideas. Even "Cali-

(Turn to Page 32)

". . . free handling of classic forms."



Key to diagram showing how the mobile expansion house is opened to full size after arrival at the site. 1) Roof is raised from its position against the side of the center section. 2) End walls are swung into place. Floor section is then lowered. 3) Side wall that is hinged to it is raised to join with roof. 4) All sections fit together snugly and require only sealing against weather.

PREFABRICATED FIVE ROOM BUNGALOW

A mobile five-room bungalow that can be made ready for occupancy an hour after its arrival at the site, costs $3,000 complete with fixtures and basic furnishings, has modern appliances built in and can be transported frequently on short notice, has been developed by the Palace Corporation of Flint, Michigan.

The post-war models are 28-by-24-foot one-story bungalows. Materials to be used in actual production will depend on advancements achieved by present experimentation. Emphasis will be on durability and light weight.

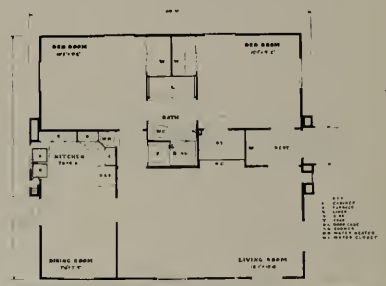
The living room measures 18′ 1″ x 10′ 8″ and contains a built-in bookcase with two large built-in compartments beneath the shelves, as well as built-in cabinets next to the vestibule. The dinette is 7′ 4″ x 7′ 9″; the kitchenette 7′ 4″ x 6′ 6″; the master bedroom 10′ 5″ x 9′ 2″; the other bedroom 10′ 1″ x 9′ 2″; and the bathroom 5′ 1″ x 5′ 1″.

The house leaves the factory as a unit eight feet wide and twenty-eight feet long. At the site wings are opened out from the sides to form additional rooms. No fabrication of any kind is necessary at the site. A simple foundation is prepared by a local contractor in advence. Walls separate the rooms, and the house when ready for occupancy is as substantial as conventionally built houses in effect and appearance.

All fixtures are in place when the house leaves the factory. These include the shower, washbowl and water closet in the bathroom; the super-efficient oil heater; the electric stove, refrigerator, dishwasher, two-tray sink, hot water boiler and cupboards in the kitchenette.

Basic furnishings, such as beds, dressers, dinette set and living room set, can be delivered with the house. They are stored in the center section in transit. When the house is to be moved the furniture can be shipped inside and the whole thing moved for the same cost as shipping the furniture alone. This is because of greater handling required for shipping furniture by van, tariff costs, trucking regulations and furniture moving rates.

Palace has developed this house to meet a post-war market it expects will exist.



Upper Picture: Exterior of mobile expansion home. Right: Diagram of house opened to full size upon arrival at site. Below: Floor plan; living room; kitchen; assembly line in Flint factory.

Photo on left shows housewife removing letters from indoor mailbox.

COMMUNITY AIRPORT TERMINALS

By ALBERT F. HEINO, Architect

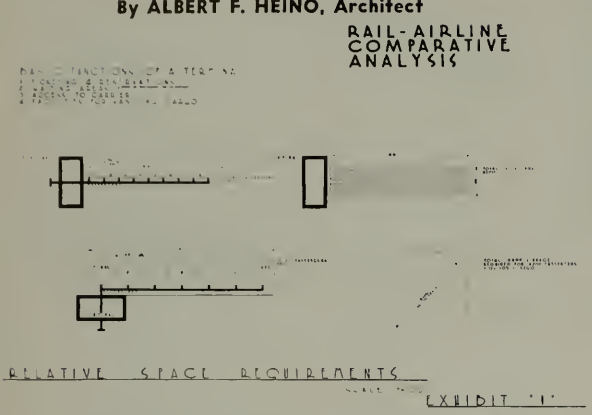
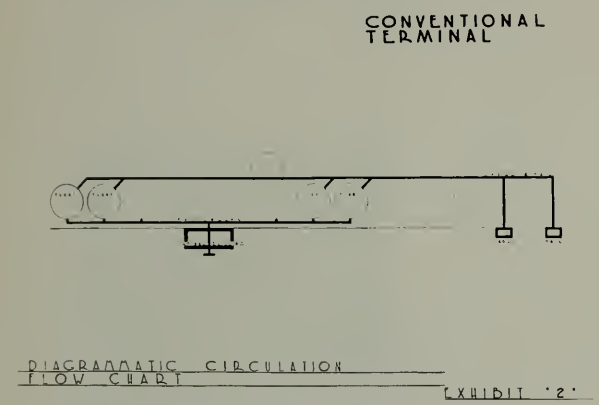
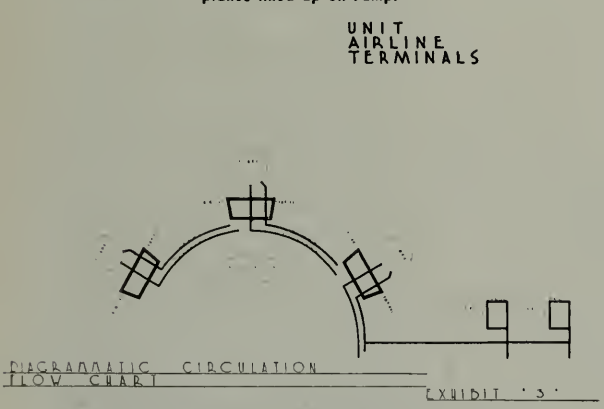


Diagram shaws airplane ramp space required to handle passengers an a 9-car Pullman and day coach train.



Passengers enter central terminal and proceed to airplanes lined up on ramp.



Basic principle of unit plan. Passengers disbursed to individual terminals.

We are looking forward to the great future of the airplane industry. The development we have witnessed to date is indeed only the beginning of an era that will blossom into the "age of flight." We have been suffering from acute growing pains and have just become of age. We must raise our sights and start to plan with more assurance and with greater scope to accommodate an even more rapid growth. Our "Topsy and Eva" growth must be supplanted by well-organized and regulated projected planning providing elbow room for the expected expansion.

Whereas before the war the total fleet of commercial airliners totaled 350, we now look forward to the possible employment of 5,000 aircraft in our daily domestic operation within twenty years after the war's termination. Some estimates increase this number. A greater variety of aircraft will come into the terminal. The present standardization will go with the end of the war and each airline will develop specialized plans to best serve its requirements. United expects to operate at least five types of planes, named for convenience, the "Day Coach," "Deluxe Sleeper," "Standard Sleeper," "Short-Haul Trunk Feeder," and the "Cargoliner." Of these types, probably three sizes of aircraft will be in operation. By three years after the war, United expects to have in service 20-25 Day-Coach type, 10-15 Deluxe Sleepers, 20-25 Standard Sleepers, and 65-70 Short-Haul Trunk Feeders. In addition to these there will be a number of Cargoliners.

When one contemplates this estimate of growth within a relatively short period, it is not difficult to realize the urgency to plan now for adequate airports to handle this traffic. We must have vision, tempered by factual information so that we may not only plan for the immediate future but make these plans flexible enough to permit a reasonable expansion beyond the expected demand. It is necessary that both the municipalities and the operating airlines work in close harmony and

Editor's Note: Mr. Heino is architect for United Air Lines. His ideas for a post-war terminal to function as a "community in itself" were presented before the Midwest Airport Managers' Conference at Fort Wayne, Ind.

FORSEEN IN POST-WAR PLANNING

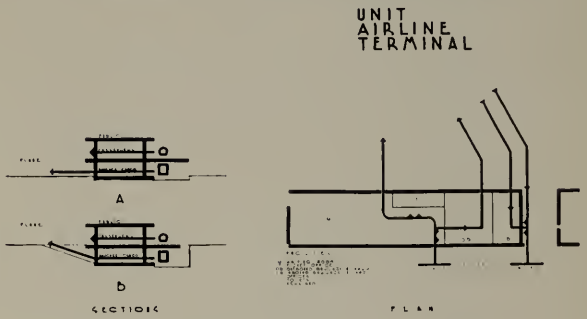
cooperation, taking advantage of the wisdom of each in planning for this growth.

Your cities show increasing evidence of concern about this problem if the inquiries are an indication. Airport managers and technical advisors to local governments are in the very responsible position of being able to control the planning for their communities and to a certain extent their destinies in the development of the air age.

HISTORY—In the early days of the air transport industry the airlines operated from their hangars. The principal cargo was mail, carried under contract with the Government. As passengers desired to be carried by air they were accommodated at the hangar, where later it was necessary to provide some facilities for their comfort. The result was a sort of combination hangar and passenger station, some of which exists even to this day. Perhaps the best example of this separation of airlines in individual hangars and passenger terminals is the Newark Airport which was used in this manner up to the outbreak of the war.

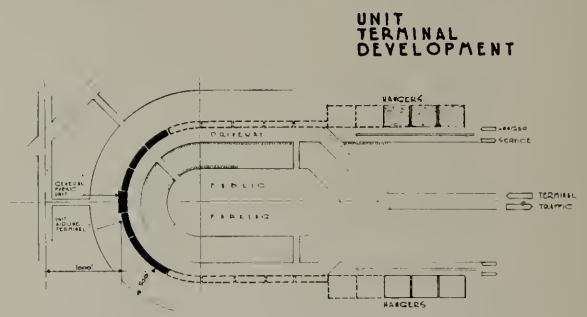
As the need for passenger and cargo handling facilities increased, municipalities became aware of the need for passenger terminals to accommodate the growing number of airline passengers and the great numbers of the general public who were attracted to their airports to witness the activity. The airlines leased space in these buildings and were accommodated in a very satisfactory fashion during the early growth of the industry.

It was natural that the first airport terminals should be patterned according to the best experience of railroad station design. They contained public spaces, ticket offices, post offices, baggage rooms, and other services usually found in a railroad station. One passed through them to an open-air concourse where the planes were lined up at gates much like trains but occupying much more space. They were built to accommodate the existing business and provided little flexibility for expansion. When new airlines came into the terminal or the business



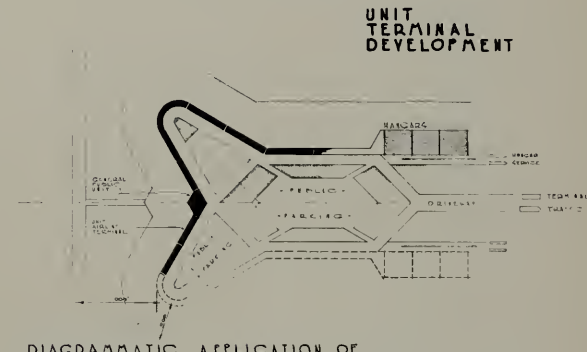
DIAGRAMMATIC CIRCULATION FLOW CHART — EXHIBIT '4'

Single unit terminal in plan and section. Note separation between boarding passenger and baggage and deplaning passenger and baggage.



DIAGRAMMATIC APPLICATION OF UNIT TERMINALS — EXHIBIT '5'

This plan provides expansion for both terminal and hangar buildings.



DIAGRAMMATIC APPLICATION OF UNIT TERMINALS — EXHIBIT 'G'

Another application is an alternate design. General plan may assume a variety of shapes.

of existing airlines expanded, a real problem then presented itself to find space within the limited walls to accommodate the new condition. When the business outgrew the terminal, the answer was a new, larger and more expensive one. Many of you now have plans for new buildings to be erected after the war and many of them likely follow the pattern of pre-war terminals but on a larger scale. You are hoping that the new terminal will serve the traffic demand for a long period and prove a good investment. The building of a new terminal is quite a serious business because many of the old terminals have not yet had a sufficient economic life and are already outgrown.

APPROACH TO THE PROBLEM — As we view the problem, there are two general approaches to its solution:

1. **The Central plan,** which is a continuation of the present method of concentrating all of the terminal activity in one location from which the airline passengers are disbursed to plane berths, many of which are very remote from the central terminal. Baggage, mail and express is handled in much the same way and involves transportation to and from the remote airplane and the terminal building. The alternate under this philosophy is the "production line" processing planes through or around the terminal.
2. **The Decentralization plan,** which permits the passengers, their baggage and mail and express for a given airplane to go directly to the airplane without passing through a central terminal building. Such a plan permits a separation of the general public and airline passengers not easily attained in the central plan. It simplifies the handling of a large number of people by serving them in smaller groups.

Many developments of the central terminal have been advanced recently. One of the most interesting advocates a "production line" of aircraft, four abreast around the terminal from unloading to loading positions in 360 degrees servicing the planes as they make the circuit. Another provides docks contiguous to the terminal. Still other designs involve various forms of "fingers" projecting from the central building, each of which provides access to aircraft on either side. In each plan of the central design there must be a high concentration of activity in relatively small areas. Also, this plan is likely to be uneconomical in the early period of its use if it is planned for adequate expansion. Conversely, if it is built to the immediate demand, costly expansion as well as disruption of its operation at times of alteration is inevitable.

The proponents of each theory have many arguments for the plan of their choice. It is the opinion of the author that, as the volume of business, both passenger and cargo, increases, greater difficulties will develop in Plan No. 1 than in No. 2. He does not desire to forego the advantages of Plan No. 1, but to combine the best advantages of each approach to the problem. The studies conducted up to this time are not conclusive but are presented for your consideration and criticism. If the basic thesis is correct, the plan proposed should adapt itself to any terminal, large or small. Its application would vary and have inherent characteristics of the individual locality.

AIRPORT CAPACITY—Recently the airlines of the country have undertaken joint studies on airport design. These studies have been made for airports using single runway systems with a capacity of 45 movements per hour, those having dual runway systems and a capacity of 120 movements per hour, and larger ports with multiple runways and capacities of 240 movements per hour and up. Runway pattern and capacity has been the major concern up to this time. It is generally agreed that we may expect 60 movements (take-off or landing) per hour per runway on airports having two or more runways in each direction. On a single runway system, because it is necessary to make either a take-off or landing on the same runway, 45 movements per hour will probably be maximum.

A definite relationship exists between runway capacity and required ramp space at the terminal. Allowing 30 minutes in and out per plane, it is necessary to provide a number of plane berths equal to 25 per cent of the runway capacity. While this figure might seem high, allowances must be made for irregularities in schedule and varying sizes of aircraft. It also makes an allowance for averaging terminating and through trips. In a determination of lineal ramp required we have assumed an average distance of 160 feet per plane, which

is only 15 feet in excess of the turning circle of a DC4. As an example, an airport having a runway capacity of 120 movements per hour will require berths for 30 planes at the terminal; allowing 160 feet per plane the lineal footage required is 4800 feet. These 30 planes will have a capacity of 1500 people. The same number of people may be accommodated in 56 feet of gate space at a railroad terminal and be carried in four combination pullman and coach trains of nine cars each. This fact alone indicates that a different approach to the design of airport terminals should be adopted over the former duplication of railroad terminal design at our airports.

Certainly the terminal design will be a factor in the expectancy of any airport to reach its theoretical runway capacity.

SOLUTION—Our studies have not proceeded to the stage of conclusion or recommendation. This paper presents what we have considered a possible solution of the decentralized plan which offers many advantages over designs that follow the central pattern. The principal advantages seem to be:

1. Avoidance of congestion.
2. Ability to expand easily with expanding operations.
3. Separation of general public and airline passengers, simplifying handling of personnel.
4. More personalized service to patrons by the airlines.
5. Incentive to competition among operators, resulting in better service.
6. Direct control of its own operations by each airline.
7. Possibilities of a civic development at the airport independent of, but contiguous with, the airline unit terminals, divorcing the problems of operations from such development.
8. Convenience to the airline passenger by providing him with the simplest and most direct access to his airplane from his ground transportation.
9. Fewer opportunities for mishandling of passenger baggage and cargo by airline personnel through localizing the operation.
10. Economy—long period amortization of investment; low unit cost for expansion.

The terminal has its beginning as a series of one-story units interconnected to each other and to the central public building. It expands as a one-story group of buildings until such time as the traffic demands a separation of passenger and cargo handling at different levels.

A tunnel under the unit terminals is connected to the basement of the public center. In this tunnel are located all of the utilities necessary to serve the entire terminal group with "spoke" tunnel connections provided to ramp positions of the planes. As the plan expands it will be necessary to include transportation for passengers to various parts of the terminal. This may be done by electric cars, tractor trains, moving sidewalks or similar conveyances on one side of the tunnel. The opposite, or field side of the tunnel would be a raceway for tractor trains carrying interconnecting cargo, cargo deliveries to individual airlines and also transportation of mail to and from the central Post Office in the public building.

The ground floor of each unit contains a waiting room, ticket office, baggage and cargo room, offices, toilet facilities and access to the tunnel and observation deck above. This area is designed to provide the passengers with only the services necessary to expedite their enplaning or deplaning. Deplaning passengers are separated and do not go through the waiting room but leave the field through a passageway leading to their waiting surface transportation.

The roof deck is continuous over the unit and is used by the public and well-wishers of airline passengers. It is connected directly with the second floor of the public building through a system of terraces.

When the passenger arrives at the airport in his car, limousine or bus in time for the departure of a specific flight, he goes directly to the airline terminal of his choice and within a very short distance, he checks his bag, buys a ticket and enplanes immediately. If the flight is a continuing one, the deplaning passengers have left the plane by a separate path and picked up their baggage on the way out. As each airline requires more ramp space, it will lease more units and localize its business by direction of flights or by flights. Access to the interconnecting tunnel and to the observation deck is provided at each unit.

The size of the units is uniform at a given

airport, although the adopted unit size may not be uniform for all airports. In order that the greatest flexibility may be attained they must be interchanged by the operators as they expand with a minimum of interior partition changes to suit the operating procedures of each airline. At the outset the operators determine their relative position with respect to the public center which should be the focal point of the whole development.

Many variations in terminal pattern design are possible, but it is important to note that the design must permit access to the units by ground transportation on the off-field side. Theoretically, the ideal is reached when each unit serves one plane position but obviously this requires constant use of all the gates in order to be economical by the constant employment of personnel. This requires a frequency of schedule probably not attainable at all hours of the day in the foreseeable future.

Cargo is delivered to the units at the surface and from the tunnel as described above. Possibly certain of the units might be devoted to cargo operation exclusively. It is possible to have subterranean conveyors connected to the tunnel and chutes from the cargo rooms terminating in elevators or inclined conveyors at the plane positions. These may be integrated with the utility service branch tunnels serving each plane.

When the volume of passenger and cargo traffic demands a complete separation by levels, the unit terminals are increased to two stories, raising the public observation deck one floor. The passenger service is then located on the second floor and the entire ground floor is occupied by the cargo operation and airline offices.

At this stage of development it is necessary to double-deck the approach drive, permitting passenger cars to load and unload on the passenger level and providing a truck driveway at grade level for direct deliveries to airline cargo rooms. Passengers may be loaded from cantilevered canopies to the plane by means of adjustable gang planks covered in inclement weather. In the case of the DC4 or other planes with tricycle landing gear, this permits level loading. This makes possible a movement of cargo, mail and plane service crews on the ground without interference, affording maximum safety and efficiency. It should be noted that these advantages may be secured in the one story plan if passengers are loaded from the observation deck as a prelude to the building of the second floor. Many airports will be ready for this stage of the plan immediately after the war.

The composite terminal is economical. It permits progressive growth as the business requires by the addition of inexpensive units and does not cause a major revision even when the traffic increase is sudden. Wise planning will allow an area around the public center for expansion by starting the first airline units a sufficient distance away. It may also be located across the driveway, allowing the airline units to project across in front, as shown in the diagrammatic exhibit 3.

CALIFORNIA ARCHITECTURE

(Continued from Page 26)

fornia ranch house" has not yet become a type, and it will not so long (and only so long) as each solution continues to be fresh and original. The finest residential architects of the Bay Area are on the way to being well represented in this rolling countryside. Local residents can—and some actually do—"point with pride" to work of Frederick Confer, Miller and Warnecke, William W. Wurster, Williams & Wastell and others. If the architect can prevent the deadening effect of stylization and the limited point of view of the ecclectic-minded client from obscuring his true function, both his clientele and his profession will benefit beyond measure from the broader approach. The full challenge of this exceptionally scenic countryside will be met. (That is not idle rhetoric; homes perched on mountainous sites are, as we all know, so tough to plan, the trite solution is automatically ruled out). As in few other places in the nation, the public is ready and eager, I believe, for the open, well-functioning plan, studied orientation, radiant heating, today's and even tomorrow's building materials and construction methods, detail that is as apt as it may be unconventional—all harmonized into an indigenous, well-articulated expression of livability.

WE HAVE TO MAKE ORDER

... A Faculty of Interrelations

By SIEGFRIED GIEDION*

Great changes are foreshadowed in our cultural structure. The elements of this change already exist in science, whether biology or physics, in art, in architecture and in many other fields. But these elements are unrelated; they have no inner contact with one another.

There can be no question that what is and what will continue to be the outstanding task of our time, interrupted at the moment by a dangerous war. Even as the soldier has to prepare the means of defense in peace times, so we have to prepare an outline of later developments in time of war. The experience of the past twenty years has shown us what it means to enter a period of peace without a plan and without knowing what has to be accomplished.

The problems involved are not concerned with, they do not revolve around the question of ever-faster means of transportation or of ever-increasing production. The problem is not that of piling up more and more inventions and facilities. The problem can be stated in a few words. **We have to make order.** That is the task.

The first condition of making order in the present state of affairs is to proceed from general points of view, and general points of view are always related to a conviction, that is, to a moral faith. The uproar will be the greatest since the industrial revolution, since basic human values will clash with the distortions of our present day living habits. There is no choice left. Either we find a way to restore human dignity to a primary place in our daily life or our civilization will perish. Human values must be defended against the dictatorship of ever-accelerating production and its intimate correlatives, the tyranny of the job and financial insecurity.

In what way and by what means this change will be accomplished is impossible to foretell, but we may know for a certainty where our battle stations are in the struggle. It is not our task to insist that later aggression must be prevented, as politics is not our field. Nor can we control industrial production, or force the authorities to make order in the nightmare of our cities. Our task and our moral obligation is to make order in our own field, to establish the relations between the sciences, art, and the humanities. This is what is lacking today. To build up the interrelations between the different branches of human knowledge is to establish the fundamentals of a new culture.

To make order in our own field is to restore again the lost equilibrium between feeling and thinking and between an external world which has gone wild and the basic nature of man. This revelation of human personality will not come from the world of business. It must develop outside the market. The healing processes of our time will be found in the highly developed sciences and in art.

The thesis of this symposium, whether art should be a basis of communication between the disciplines of liberal education (and I would prefer to say of **any** education) depends on what art means to us.

Art, creative art, forms the symbols to express what is going on in the subconscious of man in the everchanging equilibrium within the human soul. A period which regards art as a plaything, as a luxury, or as unnecessary, a people who believe that research which does not pay can be ignored, has signed therewith the death warrant of culture, and has revealed its own inner breakdown.

No one can live without symbols. The wildest tribes have found the need of idols, of totem poles, as symbols of their inner world. The problem on which **Space, Time, and Architecture** revolves is the uncanny power of feeling.

The symbolic urge in such time as ours can also be falsified. The history of successful painting in the nineteenth century, loved by both rich and poor, is a history of falsified symbols. Even in our own times buildings are erected in a manner or in a style through which the owner

(Turn to Page 37)

* Secretary, International Congress of Modern Architecture, and author of "Space, ime, and Architecture."

GOVERNMENT RELEASES FIRST PHOTOGRAP

PLATE 1

Engineers thruout the country have indicated unusual interest in the design, construction and worka bility of the giant basic magnesium electro-chemical plant at Las Vegas, Nevada. Up to the presen time much of the basic information about this plant, as well as publication of photographs, has beer subjected to Government censorship. The first four pictures in Plate 1 tell the story of movin 23,000,000 gallons of water every 24 hours thru the world's largest hydrolift pipe line—a 40-inc "snake" that winds across 15 miles of Arizona desert. The next eight pictures show how electricity is used in the production of magnesium. Plate 2 starts with a photo of "File Drawer" mechanism fol lowed by a series of control, production and transportation pictures. Key to the various photograph follows:

PC-1803

Six 18-in. turbine pump columns reach 196 feet into Loke Mead in Nevada to lift 23,000,00 gallons of water every 24 hours up to 600 feet and over the mesas to the magnesium plant 13 mile away. This water plays an important role in the daily drama of extracting war-vital magnesium from ore

PC-1804

Sixty-seven tons of water every minute is the load placed upon these Byron-Jackson centrifuga pumps driven by 1250 horsepower Westinghouse synchronous motors. More than 10,000,000 gallon are recirculated every 24 hours through 350 miles of plant piping to cool equipment and wash materials during chemical and electrical processes.

F GIANT BASIC MAGNESIUM PLANT

PC-1805
Close-up of motor, six of which drive booster pumps on the main water supply line. Workmen in the picture are William Redhead (left), Westinghouse service engineer, and A. L. Philpot, maintenance electrician for the pumping plant.

PC-1806
From the cool depths of Lake Mead, backed up behind Boulder Dam, three pumping units like the one shown in Plate 1 draw 23,000,000 gallons of water every 24 hours to supply the production demands of Basic Magnesium, Inc.

PC-1807
All electric current to drive compressors, pumps, cranes and other equipment, passes through this Westinghouse three-phase transformer and its associated high and low voltage switch-gear. In this plant, 400 tons of salt are dissolved each day into brine, from which chlorine is made by standard electrolysis method. Chlorine is the cornerstone of the process in use at Basic Magnesium to produce the magnesium metal.

PC-1808
Five giant motor-generator sets in one of the metals buildings deliver direct current which is passed through magnesium chloride in the final process of converting ore into magnesium metal.

PC-1809
Frequent temperature checks of the brushes and armatures of generators are made to insure continuous operation. Dan O'Byrne, shift operator in one of the Metals Buildings at Basic Magnesium, Inc., is taking such a temperature reading to be sure that the brushes are not heating to more than 80 degrees, and the armature 45 degrees centigrade.

PC-1810
Elemental electronics, applied in the form of current rectification, provides a continuous 24-hour flow of direct current necessary for the production of magnesium metal. Ignitron rectifiers, shown in the photo, assembled in units of 12 tubes, deliver 5000 amperes each at 365 volts D-C.

PC-1811
Two types of transformers handle the power supply for Ignitron rectifiers which convert alternating current to direct current. Westinghouse rectifier transformers (either end) were installed to provide power to the rectifier units for conversion to 350 volts D-C.

PC-1812
Circuit breakers insure adequate protection to equipment in case of direct current faults.

PC-1813
Heat exchangers maintain constant temperature control of mercury vapor which serves as the current conductor in the ignition rectifiers. Raw water is piped from Lake Mead, man-made desert lake behind Boulder Dam, to the heat exchangers, at a temperature of 20 degrees centigrade.

PC-1814
Protection of small motors, fans, and blowers is the job of this installation of circuit breakers and transformer. Twenty identical units control the electrical power which operates the cranes and lights the lamps in ten metals buildings.

PC-1815
"File drawer" mechanism makes it easy to change a draw-out type circuit breaker, as demonstrated by G. D. Allison, shift electrician. The tripped breaker, protecting a works transformer, was replaced in less than five minutes after the cause of the outage was repaired.

PC-1816
Two of the most vital electrical operations have their source of energy—electricity—controlled through the two big Westinghouse transformers shown in Plate 2. Furnace transformer, on the left, rated at 485 kva, is used to heat the chlorination furnaces.

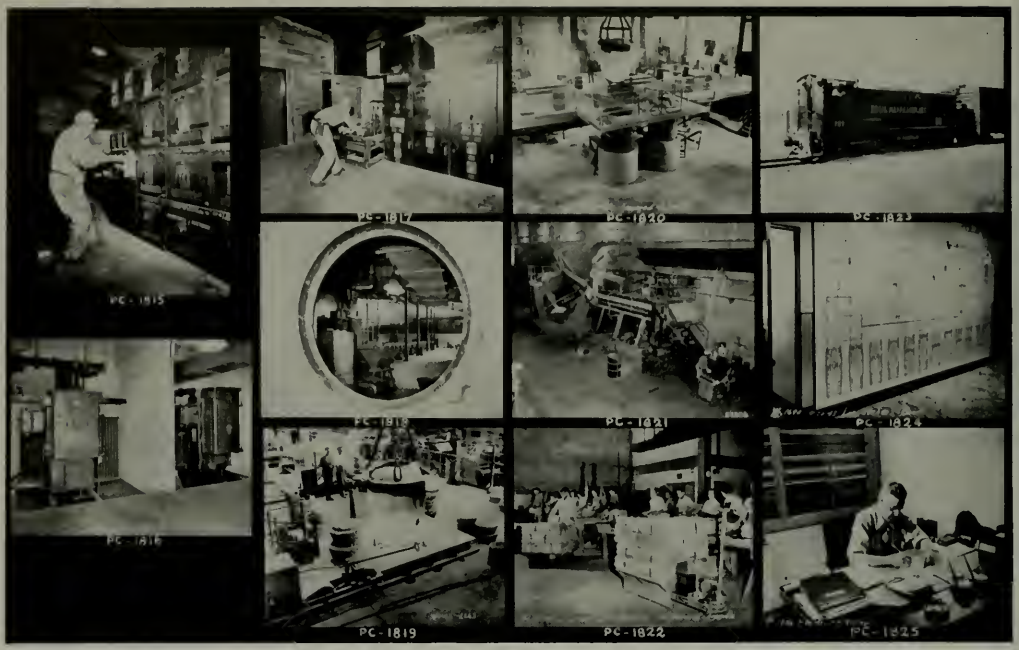


PLATE 2

PC-1817

Fast operating oil circuit breakers guard furnace and heating transformers that control the heavy load of electric current.

PC-1818

Teamed together to produce for war are the chlorination furnace at the left foreground and a row of electrolytic cells.

PC-1819

Magnesium "cheeses" which weigh about 100 pounds each are taken from the electro-chemical processing building and lowered in crucibles into alloying furnaces, where two-ton charges are combined with other metals.

PC-1820

Red hot crucibles holding 4000-pound charges of molten magnesium are lowered into cooling tanks during alloying operations at the refinery.

PC-1821

Two tons of molten magnesium are poured from the crucible into an endless belt of molds in the ingot casting section of the refinery.

PC-1822

Tokens for Tokyo!—Hardened magnesium ingots, steel strapped in 60-pound bundles of a dozen ingots each, are trucked to waiting freight cars on a siding adjoining the shipping department.

PC-1823

More than a million tons of construction and production materials have been shunted around the four square miles of plant area by this Baldwin-Westinghouse diesel-electric locomotive.

PC-1824

Dispatchers' board, Central Control House. This board is the heart of the far-flung electric system, and enables the dispatcher to determine at all times the exact operating position of his equipment.

PC-1825

H. H. "Red" Gillings, electrical superintendent at Basic Magnesium, Incorporated. "Red" is the presiding genius and motivating force back of this huge industrial electrical system.

WE HAVE TO MAKE ORDER

(Continued from Page 33)

would like to mirror himself. Thus, we may understand the residences or colleges erected in Gothic shapes and reflecting a manorial attitude toward life. These are phenomena of escape and no real expression of feeling. They are the expression of inner uncertainty.

To make order in our own field we have to restore again the lost contact between the different sciences, between sciences and humanities, and then this interrelationship with human expression. We have to create a new vocabulary. This is not easy. Anyone who has tried to place representatives of different disciplines at the same table in order to elucidate the methods each follows in his own sphere will have encountered at once this obstacle—each representative seems to speak a language of his own. The extreme specialization of the sciences has led to the loss of a common vocabulary based on mutual understanding.

Behind this misunderstanding lies the structure of the man today. The representative man of our period is the unevenly developed, the maladjusted man, his thinking and his feeling divorced, a split personality. He has one organ developed at the expense of another, or he has some organs hypertrophied. A sportsman, for instance, may be trained exclusively for long distance running, and will have neither the time nor the strength left to hold his own in jumping or in wrestling. Such development leads indeed to the setting up of new records, but it must be paid for by the possession of a one-sided mind or of an unevenly balanced body. From such an unevenly developed man has come the outstanding personality of our time—the specialist.

The specialist, as he appeared in the last decade of the nineteenth century in all the fields of human knowledge, felt no need to integrate his own research with the whole and he regarded any contact with other fields of research as senseless. He was the master of compartmentalization, as John Dewey puts it.

Does this mean that we should consider the specialist as a catastrophe and do away with him? This would be the same as proclaiming that the advance in our knowledge of inanimate matter is the worst thing that could have happened to the human race, or that we should destroy cities because we have misused them. Our age, indeed, has been the work of specialists. Either we continue our differentiated sciences and techniques, or we return to a primitive state. This primitivism may appear, at first, very tempting, but in reality it would mean an end.

Yet something must be changed. And this is the **type** of specialist. His activity has to be founded on a wider field. There is no reason whatever to expect that the road which knowledge will follow will refrain from even greater differentiation. And there is no contradiction in saying that at the same time an ever greater urge toward breadth of outlook must be developed.

In other words, the new type of specialist will not use exclusively the microscope which magnifies his particular problems. He must have at his disposal both the microscope and the aerial photograph. The spiritual attitude which must lie behind every piece of research and which acts as an invisible pilot has to incorporate every special problem into a universal conception of life. This has been the secret of every culture. The specialist has destroyed that common consciousness which we call culture. It is the specialist who has to restore it again.

Just as a wounded body tries to regain its equilibrium as far as it can out of its own resources, so the healing of the present state of culture must start within knowledge itself. It is on this occasion impossible to trace even the process which leads to the conversion of the self-restricted specialist. We cannot show how chemistry flows into physics and into biology, or biology into physiology. We cannot explain urbanism as no longer restricted to technical or economic problems, or how even in single sciences the particular phenomenon is regarded as being of little importance. We cannot examplify how a new methodological power in modern physics has destroyed the mechanistic conception of the world and has been extended to totally different fields of knowledge. In the field of exact sciences there is not only hope, there is already a certainty of the coming changes in our cultural structure.

The educational ideal of the second half of

the nineteenth century, as it was developed from the time industry put its impress on the whole of life, was also imbued with specialization. As specialization was understood, it meant learning facts, more facts, as many facts as possible, with a minimum of interrelation. Facts which are not based on a basic methodological background clutter up the brain and undermine the productive capacity. In the future particular stress must be laid on the interrelations of the facts rather than on the facts themselves.

For this reason a faculty must be created in the universities which functions as a sort of coordinator between the sciences and the humanities. Scholars will not only have to teach on such a faculty; each of them will have to learn as well. There must be built up a knowledge of methods, the beginning of a common vocabulary. Scholars must have systematic contact with one another, while such a faculty will be concerned especially with the study of its own period.

In each of the great universities I know there are already established informal groups of scholars moving quietly toward this goal. In each of these universities there are men eager to find interrelations among the different sciences and between them and the humanities. If we define history as an insight into the moving process of life, such a faculty will be one of contemporary history. If our own period is interpreted by the different departments, a common language will develop. When recently I talked with Professor John U. Nef in Chicago, an expert in the field of economic history, on this subject, he referred to the chapter in his recently published book, **The United States and Civilization,** where the idea of a new faculty, different in detail, but moving in the same direction toward integration, was advocated.

The will is here, the people are here, all that has to be done is to form an organization which will serve to further the study of the methodology of our period through the collaboration of scholars, and to serve at the same time the needs of students by giving them a comprehensive outlook of our methodological perspective.

I would not be misunderstood. In line with the whole structure of present-day knowledge we have to continue to train specialists. We do not want to educate dilettanti. There should be no popular courses on astronomy, on painting, on physics, literature, or ethnology. Rather should there be given an insight into the methods and the interrelations of present-day knowledge. In this way the mind of the coming specialist may be trained so that he will be able to conceive his own problems in relation to the whole. To make order, as I said at the beginning, is the first step towards a new universal.

According to the structure of our period, the renascent universality has to be built up gradually. Like a mosaic, it has to be put together, piece by piece, by specialists of the new type. It cannot originate in the brain of a single philosopher. It cannot come into being through the invention of a philosophical system, as Hegel tried to do more than a century ago.

Universality involves the state of the balanced mind, where the methods of feeling—everything which is concerned with art—have caught up with the methods of thinking, everything which is related to science and the humanities.

Thus would be formed the sound background out of which new creative forces would once more arise, to complete what was begun in a menaced period. It is basic to the whole conception that art will have to play an active role.

Such a faculty of interrelation cannot be borne by the will of a single man. It must grow out of the persistent will of the period. The time for it is now. As I tried to say in **Space, Time, and Architecture,** our culture is like an orchestra where the instruments lie already tuned, but where every musician is cut off from his fellows by a sound-proof wall.

PRODUCERS' COUNCIL PAGE

Northern California Chapter
The National Organization of Manufacturers of Quality Building Materials and Equipment
Affiliated with the AMERICAN INSTITUTE OF ARCHITECTS

E. E. "ED" CATHCART

Secretary Ed Cathcart started his trek west early, leaving Sioux City, Iowa, at the age of three and landing in San Francisco instead of Los Angeles after a series of 2-, 5- and 6-year stops along the way, arriving in time to attend the University of California. After graduation he attended Harvard Graduate School of Business Administration. Went to work for Johns-Manville in 1927 and has been at it ever since, covering this part of the country like a tent, moving to Fresno, thence to Chico and back to San Francisco where he now lives in Burlingame with his wife and eight-year-old son.

Present title—Building Material Representative for San Francisco and San Mateo Counties.

With wartime conditions as a stimulus, Ed has gotten acquainted with his garden—like a lot of us—and finds he likes it.

Ed is a "comer" in the Council activities and you're going to hear more about him.

The Post-War Picture is confusing—to put it mildly, and local Chapters throughout the country are wondering just what their place is in the scheme of things and what can be done about it. To help answer these questions and guide them, the Chapter Committee of the Council nationally has analyzed the Council's 21-point Platform for Post-War Construction in terms of Chapter activities.

Spark-plug best describes the role of the local Chapter in post-war planning. Of the six points under the section on Reconversion all can best be handled by promoting through existing civic and trade organizations.

Modular Planning offers the one big opportunity for Chapters to help in the field of Technical Advancement. Your Chapter is actively promoting dimensional coordination right now. Interest in this subject aroused through the "spark-plugging" of Ray Brown, chairman of the Technical Sub-Committee of the Chapter Post-War Planning activities, has resulted in the adoption by the newly formed Clay Products Industry Committee for this area, of Modular Planning as the most important approach to meeting post-war competitive conditions. Chairman of this new group, composed of representatives of Labor, the Masons and Builders and Manufacturers, is one of our own members, Chuck Kraft.

Authentic Information and Extension of Technical Services offer the other opportunities to serve among all the rest of the Program's points—and that we are individually paid to do by our respective companies anyway. After all, it is on the corner stone of authentic information that the whole being of our Producers' Council organization rests.

Like Charity, Post-War Planning begins at home. What are you in your own activities doing to make your own picture more secure. Are you spending part of your time now to line up business for later on? Are you helping to—

New Bidding Practice to eliminate the "Or Equal" clause offers another opportunity for Chapter activities.

ENGINEERS GIVE TALKS BEFORE L. A. ARCHITECTS

The April meeting of Southern California Chapter, at the Hotel Clark, Los Angeles, featured a talk by Paul Jeffers, dean of structural engineers in the southern part of the State, on the selection of appropriate construction methods for spans of various widths.

Engineering problems that enter into the design and construction of buildings were described by Ord Slater, president of the Smith-Emery Laboratories, Los Angeles. Several usual and unusual examples of building material testing were cited.

Earl Heitschmidt, chairman of the Chapter's Unification Committee, gave a report of his recent trip to San Francisco to discuss various phases of the unification plan with President Spencer of Northern California Chapter, Fred Reimers of the State Board of Registration, and President Bowles of the State Association. The committee has studied carefully the Del Guadio report and has discovered a number of details that must be worked out before the program can be made acceptable to Chapter policies.

At the March meeting of the Chapter the report of Public Works Committee was made by John C. Austin, who outlined the probable method to be followed in selecting architects for future county buildings.

The Chapter has nominated the following members, including alternates, to represent it at the annual Institute Convention in Indianapoils next month: President Herbert Powell, (ex officio) Paul Hunter, Welton Beckett, John C. Austin, Earl Heitschmidt, Ted Criley, Henry Eggers, Adrian Wilson, John Landon, Whitney Smith, Stanley Gould, and Paul R. Williams.

Among the members who are finding commissions with travel attached are Richard Neutra, who has been in Central America and the West Indies; Roy Kelly, who is in Mexico City, and Welton Beckett, who is on a two months trip to Mexico City, Guatemala, and Havana.

ARMY DEPOT, ALAMEDA

The War Department has authorized immediate construction of a new army depot at Alameda at an approximate cost of $4,000,000, to be planned and constructed under the supervision of the U. S. District Engineers, 74 Montgomery Street, San Francisco. Contracts for grading and filling have already been awarded.

NEW LABOR REGIONAL OFFICE

Establishment of a new regional office of the Bureau of Labor Statistics, U. S. Department of Labor, in San Francisco, has been announced. William A. Bledsoe, who has been regional price economist in charge of the price branch of the Bureau, was named regional director for California, Oregon, Washington, Nevada and Arizona.

John C. Gotschall becomes regional price analyst while L. Arthur Jenkins continues as regional wage analyst.

Regional offices of the Bureau are at 1355 Market Street, San Francisco, with a branch office in the Seaboard Building in Seattle which is in charge of J. W. C. Harper. In Los Angeles the present field offices will be maintained, the price branch at 1031 South Broadway and the Wage Analysis Division at 312 North Spring Street.

SAN FRANCISCO ARCHITECTURAL CLUB

San Francisco Architectural Club will hold its regular meeting Wednesday, May 3, at the Builders' Exchange. Ferdinand T. Kebely, authority on plastics, will speak on this subject, with particular emphasis on its use in architecture.

Mr. Kebely is a successful manufacturer of plastics and has taught the subject at the University of California.

All members of the architectural profession are invited to attend this important meeting.

COMMISSIONS

The lamp department of the General Electric Company has announced it will engage ten architects throughout the United States at a fee of $1,000 each to prepare desirable lighting treatments for small houses and commercial buildings. The purpose of this program is to acquaint the public and manufacturers of lighting equipment with the ideas of the architect in the field of illumination. In Los Angeles, Theodore Criley, Jr., and Wurdeman and Beckett have been honored with appointments.

Gordon B. Kaufmann, now Lieutenant Colonel in the Office of the Chief of Chemical Warfare Service, has completed his nineteenth month in the War Department. Colonel Kaufmann has been stationed in Washington since accepting his commission, but his work frequently calls him away from the Capital.

CAFETERIA BUILDING, VALLEJO

Plans have been completed by Harry J. Devine, architect of Sacramento, for a cafeteria building at the Vallejo Junior High School. Priorities have been approved by the Government and construction is expected to get under way immediately.

ALFRED C. WILLIAMS OPENS OFFICE

Alfred C. Williams, A.I.A., has reopened his office for the practice of architecture at Room 467, Phelan Building, San Francisco. His telephone number is Garfield 2186. Mr. Williams will be pleased to receive manufacturers' literature, pamphlets, catalogues, etc.

PLEA TO END WAR-TIME RESTRICTIONS

A plan for automatically removing war-time restrictions on the building of private residences, schools, stores, and other urgently needed civilian construction as fast as the necessary materials and manpower are released from the war program, has been recommended to the War Production Board by Douglas Whitlock, president of The Producers' Council.

Under the proposed plan, the W.P.B. would grant permission for civilian construction to begin, without determination of the relative essentiality of each individual project as is the present practice, in any community where the following conditions exist:

1. The construction is to be located in a War Manpower Commission Class III, Class IV or unrated area which has been so rated for one month or longer, and where it may be presumed that an adequate supply of labor is locally available.

2. The applicant for permission to begin construction certifies that the work shall start within 30 days of the date of his application.

3. The applicant certifies that no more than 10 per cent of the value of materials required for the construction shall be obtained on a preference rating of AA-3, (or higher, if specifically applied for and granted for obtaining any particular item) and that the remaining materials can be obtained either without a rating or with a rating lower than AA-3.

NEED FOR BETTER SCHOOL LIGHTING

There are school rooms in America still trailing back in the days of the little old red school house, so far as lighting facilities go.

Five tallow candles or less would give as much light as might be found for students in many a school room, according to reports of the lighting engineers and architects.

Yet, because 87 per cent of a child's impressions are gained through the eyes and nature meant the eyes to have abundant lighting in order to see with the least strain, tallow candles are not the measuring stick. There should be at least 30 footcandles of well distributed natural or artificial light for each student.

"Nowhere is good lighting more important, declares Clark Baker, lighting counselor, Northern California Electrical Bureau, "than in school buildings in which young eyes are daily called upon to undertake intensive visual work. Investigations have proved that benefits to the eyes keep on increasing as illumination is added up to a certain point, in any event illumination far beyond the amounts in general use today. It was not until quite recently that the penalties and eyesight disadvantages of studying under meagre light were appreciated.

"Eyestrain and fatigue can be due to poor lighting. Failure of students to pass their grades can be traced to insufficient light. Where this is the case, with correct lighting the cost of education per pupil can therefore be decreased.

"Today, improvements in building and window construction and in artificial lighting make it possible to provide the lighting necessary for all types of school work."

Among recommendations made are these: Windows should preferably be placed at the left of the pupils, thus preventing shadows on their work when writing. The window glass should be extended as near the ceiling line as possible, to secure a greater distribution of light.

An electric eye that sees when daylight slips below the 30 footcandles needed automatically turns on the artificial lighting—this is a recommendation. A row of lights may be turned on separately over desks farthest from the window, where the daylight falls off sharply on even a bright day, is another recommendation.

Blackboards should have special lighting of their own, particularly in long rooms where it is difficult to see details from the back seats.

And all the special types of work now found in the modern school plant should be provided with modern lighting that has been measured to fit the task. For drafting, art and sewing rooms, industrial shops, auditoriums, stages and swimming pools, new ways of lighting are suggested that are as far removed from the little red school house as are these rooms themselves.

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(Continued from Page 13)

And this about Los Angeles:

"Los Angeles provides a great contrast with San Francisco, because it is the only really big town—it has grown from 100,000 in 1900 to 2,000,000 today—which has been planned on the assumption that every family owns a private motor car. An architect whom I met there who had built many middle-class houses told me that they would not think of providing garage-space for less than two cars per house, and usually there is need for three. The city occupies 450 square miles and is a fantastic shape, reaching out a tentacle 20 miles in length to the harbor on the Pacific.

CRAMER HEADS S. F. OFFICE

Arthur P. Cramer has been appointed engineer-manager of the recently opened San Francisco office of Timber Structures, Inc., manufacturers of prefabricated timber and glued assemblies. Mr. Cramer's office is at 220 Montgomery street, from which point he will take care of Timber Structures' local domestic commitments as well as certain types of export business.

CRAMER

Cramer is widely known to contractors, engineers and architects of the Pacific Coast. He is a graduate of Oregon State College, was formerly a consulting engineer in Portland and for the past three years has been associated with Timber Structures, Inc., whose headquarters office and main plant are in Portland, Oregon.

POST-WAR PLANNING COMMITTEE

San Francisco's Citizens' Post-War Planning Committee, 277 Pine Street, has addressed letters to Governor Warren and Mayor Lapham requesting encouragement in the committee's efforts to bring about coordination of various interests and organizations affecting the post-war standard of living in the incorporated limits of the City and County of San Francisco. The committee claims to be serving in the interest and for the welfare of the property owner, manager or operator.

COLUMBIA STEEL ENGINEER HONORED

Lieutenant Commander Charles C. Morgan, U.S. N.R., former industrial engineer at the Pittsburgh, California, plant of Columbia Steel Company, has been awarded the Legion of Merit by Washington. This is Lieut. Comdr. Morgan's second decoration in the past five months for gallantry as commanding officer of a destroyer transport in the South Pacific. Lieut. Comdr. Morgan graduated from the U. S. Naval Academy, Annapolis, in 1933.

ARCHITECT AND ENGINEER

Estimator's Guide

Giving Cost of Building Materials, Etc.

AMOUNTS GIVEN ARE FIGURING PRICES AND ARE MADE UP FROM AVERAGE QUOTATIONS FURNISHED BY MATERIAL HOUSES TO SAN FRANCISCO CONTRACTORS. 2½% SALES TAX ON ALL MATERIALS BUT NOT LABOR

All prices and wages quoted are for San Francisco and the Bay District. There may be slight fluctuation of prices in the interior and southern part of the state. Freight cartage, at least, must be added in figuring country work.

BONDS—Performance—50% of contract.

Labor and materials—50% of contract.

BRICKWORK—

Common Brick—Per 1M laid—$50.00 to $60.00 (according to class of work).

Face Brick—Per 1M laid—$120 to $150 (according to class of work.)

Brick Steps—$1.60 per lin. ft.

Brick Veneer on Frame Bldg.—Approx. $1.30 per sq. ft.

Common Brick—$19.00 per M, truckload lots, f.o.b. job.

$19.00 per M, less than truckload, plus cartage.

Face Brick—$40 to $80 per M, truckload lots, delivered.

Cartage—Approx. $4.00 per M.

BUILDING PAPER—

1 ply per 1000 ft. roll	$3.50
2 ply per 1000 ft. roll	5.00
3 ply per 1000 ft. roll	6.25
Brownskin, Standard, 500 ft. roll	5.00
Sisalkraft, 500 ft. roll	5.00
Sash cord com. No. 7	$1.20 per 100 ft.
Sash cord com. No. 8	1.50 per 100 ft.
Sash cord spot No. 7	1.90 per 100 ft.
Sash cord spot No. 8	2.25 per 100 ft.

Sash weights, cast iron, $50.00 ton.
Nails, $3.42 base.
Sash weights, $45.00 per ton.

CONCRETE AGGREGATES—

The following prices net to Contractors unless otherwise shown.

Gravel, all sizes—
$1.95 per ton at Bunker; delivered $2.50

	Bunker	Del'd
Top Sand	$1.90	$2.50
Concrete Mix	1.90	2.45
Crushed Rock, ¼" to ¾"	1.90	2.50
Crushed Rock, ¾" to 1½"	1.90	2.50
Roofing Gravel	2.25	2.80
River Sand	2.00	2.45

Sand—

River Sand	2.00	2.45
Lapis (Nos. 2 & 4)	2.85	3.15
Olympia (Nos. 1 & 2)	2.85	3.10
Del Monte White	84c per sack	

Cement—

Common (all brands, paper sacks), carload lots, $2.42 per bbl. f.o.b. car; delivered $2.72.

Cash discount on carload lots, 10c a bbl., 10th Prox.; less than carload lots $3.20 per bbl. f.o.b. warehouse or delivered.

Cash discount 2% on L.C.L.

Atlas White, Calaveras White, Medusa White } 1 to 100 sacks, $2.50 sack warehouse or del.; $7.65 bbl. carload lots.

Forms, Labors average $200.00 per M.

Average cost of concrete in place, exclusive of forms, 35c per cu. ft.; $10 cu. yd.; with forms, 60c.

4-inch concrete basement floor ..... 30c per sq. ft.

Rat-proofing 7½c

Concrete Steps ..... $1.25 per lin. ft.

DAMPPROOFING and Waterproofing—

Two-coat work, $3.50 per square.

Membrane waterproofing—4 layers of saturated felt, $7.00 per square.

Hot coating work, $2.50 per square.

Medusa Waterproofing, $3.50 per lb. San Francisco Warehouse.

Tricocel waterproofing.
(See representative.)

ELECTRIC WIRING—$12 to $15 per outlet for conduit work (including switches).

Knob and tube average $3.00 per outlet. (Available only for priority work.)

ELEVATORS—

Prices vary according to capacity, speed and type. Consult elevator companies. Average cost of installing a slow speed automatic passenger elevator in small four story apartment building, including entrance doors, about $6500.00.

EXCAVATION—

Sand, 60 cents; clay or shale $1 per yard. Teams, $12.00 per day.

Trucks, $22 to $27.50 per day.

Above figures are an average without water. Steam shovel work in large quantities, less; hard material, such as rock, will run considerably more.

FIRE ESCAPES—

Ten-foot galvanized iron balcony, with stairs, $150 installed on new buildings; $160 on old buildings.

FLOORS—

Composition Floor, such as Magnesite, 33c to 50c per square.

Linoflor—2 gages—$1.25 to $2.75 per sq. yd.

Mastapay—90c to $1.50 per sq. yd.

Battleship Linoleum—available to Army and Navy only—⅛"—$1.75 sq. yd. 3/16"—$2.00 sq. yd.

Terazzo Floors—50c to 70c per square.

Terazzo Steps—$1.75 per lin. ft.

Mastic Wear Coat—according to type—20c to 35c.

Hardwood Flooring—
Standard Mill grades not available.
Victory Oak—T & G
25/32 x 2¼" ..... $143.25 per M. plus Cartage
½ x 2" ..... 122.00 per M. plus Cartage
½ x 1½" ..... 113.50 per M. plus Cartage
Prefinished Standard & Better Oak Flooring
25/32 x 3¼" ..... $180.00 per M. plus Cartage
½ x 2½" ..... 160.50 per M. plus Cartage
Maple Flooring
25/32" T & G Clear $160.50 per M. plus Ctg.
2nd 153.50 per M. plus Ctg.
3rd 131.25 per M. plus Ctg.
Floor Layers' Wage, $1.50 per hr.

GLASS—

Single Strength Window Glass	20c per □ ft.
Double Strength Window Glass	30c per □ ft.
Plate Glass, under 75 sq. ft.	$1.00 per □ ft.
Polished Wire Plate Glass	1.40 per □ ft.
Rgh. Wire Glass	.34 per □ ft.
Obscure Glass	.27 per □ ft.

Glazing of above is additional.
Glass Blocks ..... $2.50 per □ ft. set in place

HEATING—

Average, $1.90 per sq. ft. of radiation, according to conditions.

Warm air (gravity) average $48 per register.

Forced air, average $68 per register.

IRON—Cost of ornamental iron, cast iron, etc., depends on designs.

LUMBER—All lumber at O.P.A. ceiling prices—

No. 1 Common	$49.00 per M
No. 2 Common	47.75 per M
Select O. P. Common	52.75 per M

Flooring—

	Delvd.
V.G.-D.F. B & Btr. 1 x 4 T & G Flooring	$80.00
C 1 x 4 T & G Flooring	75.00
D 1 x 4 T & G Flooring	65.00
D.F.-S.G. B & Btr. 1 x 4 T & G Flooring	61.00
C 1 x 4 T & G Flooring	59.00
D 1 x 4 T & G Flooring	54.00
Rwd. Plastic—"A" grade, medium dry	82.00
"B" grade, medium dry	78.50

Plywood—

	Under $200	Over $200
"Plyscord"—3/8"	$49.50	$47.55
"Plywall"—1/4"	45.15	43.30
3 ply—2/s—1/4"	48.55	46.60
"Plyform"—5/8"—		
Unoiled	126.50	121.45
Oiled	127.90	122.75

Above prices delivered if quantity is sufficient to warrant delivery.

Shingles (Rwd. not available)—

Red Cedar No. 1—$6.75 per square; No. 2, $5.75; No. 3, $4.45.
Average cost to lay shingles, $3.00 per square.
Cedar Shakes—Tapered: 1/2" to 3/4" x 25"—$8.95 per square.
Resawn: 3/4" to 1 1/4" x 25"—$10.65 per square.
Resawn: 3/4" to 1 1/4" x 25"—$10.65 per square.
Average cost to lay shakes, $4.00 per square.

MILLWORK—Standard.

O. P. $100 per 1000. R. W. rustic $100.00 per 1000 (delivered).
Double hung box window frames, average with trim $6.50 and up, each.
Complete door unit, $10.00.
Screen doors, $3.50 each.
Patent screen windows, 25c a sq. ft.
Cases for kitchen pantries seven ft. high, per lineal ft., $9.00 each.
Dining room cases, $9.00 per lineal foot.
Rough and finish about 80c per sq. ft.
Labor—Rough carpentry, warehouse heavy framing (average), $40.00 per M.
For smaller work average, $40.00 to $55.00 per 1000.

MARBLE—See Dealers)

PAINTING—

Two-coat work	per yard 50c
Three-coat work	per yard 70c
Cold water painting	per yard 10c
Whitewashing	per yard 8c

PAINTS—

Two-coat work	50c per sq. yd.
Three-coat work	70c per sq. yd.
Cold water painting	per yard 10c
Whitewashing	8c per sq. yd.

Turpentine $1.03 per gal. in drum lots. $1.08 per gal. in 5-gal. containers.
Raw Linseed Oil—not available.
Boiled Linseed Oil—$1.38 per gal. in drums. Available only to work with high priority—$1.48 per gal. in 5-gal. containers.
Use replacement oil—$1.86 per gal. in 1-gal. containers.
Replacement Oil—$1.20 per gal. in drums. $1.30 per gal. in 5-gal. containers.
A deposit of $6.00 required on all drums.

PATENT CHIMNEYS—

6-inch	$1.20 lineal foot
8-inch	1.40 lineal foot
10-inch	2.15 lineal foot
12-inch	2.75 lineal foot

PLASTER—

Neat wall, per ton delivered in S. F. in paper bags, $17.60.

PLASTERING (Interior)—

	Yard
3 Coats, metal lath and plaster	1.50
Keene cement on metal lath	1.80
Ceilings with 3/4 hot roll channels metal lath (lathed only)	1.20
Ceilings with 3/4 hot roll channels metal lath plastered	2.20
Single partition 3/4 channel lath 1 side (lath only	1.20
Single partition 3/4 channel lath 2 inches thick plastered	3.20
4-inch double partition 3/4 channel lath 2 sides (lath only)	2.20
4-inch double partition 3/4 channel lath 2 sides plastered	3.85
Thermax single partition; 1" channels; 2 1/4" overall partition width. Plastered both sides	3.30
Thermax double partition; 1" channels; 4 3/4" overall partition width. Plastered both sides	4.40
3 coats over 1" Thermax nailed to one side wood studs or joists	1.65
3 coats over 1" Thermax suspended to one side wood studs with spring sound isolation clip	1.90

Note—Channel lath controlled by limitation orders.

PLASTERING (Exterior)—

	Yard
2 coats cement finish, brick or concrete wall	$1.00
3 coats cement finish, No. 18 gauge wire mesh	2.00

Lime—$3.00 per bbl. at yard.
Processed Lime—$3.10 bbl. at yard.
Rock or Grip Lath—3/8"—20c per sq. yd.
3/4"—19c per sq. yd.

Composition Stucco—$1.80 to $2.00 sq. yard (applied).

PLUMBING—

From $100.00 per fixture up, according to grade, quantity and runs.

ROOFING—

"Standard" tar and gravel, 4 ply—$8.00 per sq. for 30 sqs. or over.
Less than 30 sqs. $9.50 per sq.
Tile, $30.00 to $40.00 per square.
Redwood Shingles, $7.50 per square in place.
5/2 #1-16" Cedar Shingles, 4 1/2" Exposure ..... $8.00 square
5/8 x 16"—#1 Cedar Shingles, 5" Exposure ..... $9.00 square
4/2 #1-24" Royal Shingles, 7 1/2" Exposure ..... $9.50 square
Re-coat with Gravel $4.00 per sq.
Asbestos Shingles, $23 to $28 per sq. laid.
1/2 x 25" Resawn Cedar Shakes, 10" Exposure $10.50
3/4 x 25" Resawn Cedar Shakes, 10" Exposure 11.50
1 x 25" Resawn Cedar Shakes, 10" Exposure 12.50
Above prices are for shakes in place.

SHEET METAL—

Windows—Metal, $1.75 a sq. ft.
Fire doors (average), including hardware $2.00 per sq. ft.

SKYLIGHTS—(not glazed)

Copper, 90c sq. ft. (flat).
Galvanized iron, 40c sq. ft. (flat).
Vented hip skylights 60c sq. ft.

STEEL—STRUCTURAL (None available except for defense work).

$150 ton (erected), this quotation is an average for comparatively small quantities. Light truss work higher. Plain beams and column work in large quantities $140 per ton.

STEEL REINFORCING (None available except for war work).

$150 to $200 ton, set.

STONE—

Granite, average, $6.50 cu. foot in place.
Sandstone, average Blue, $4.00. Boise, $3.00 sq. ft. in place.
Indiana Limestone, $2.80 per sq. ft. in place.

STORE FRONTS (None available).

TILE—

Ceramic Tile Floors—70c to $1.00 per sq. ft
Cove Base—$1.10 per lin. ft.
Glazed Tile Wainscot—$1.25 per sq. ft.
Asphalt Tile Floor 1/8" & 3/16"—$ .18 to $ .35 per sq. ft. Light shades slightly higher.
Cork Tile—$ .40 to $ .75 per so. ft.
Mosaic Floors—see dealers.
Lino-Tile, $ .35 to $ .75 per sq. ft.

Wall Tile—

Glazed Terra Cotta Wall Units (single faced) laid in place—approximate prices:

2 x 6 x 12	$1.10 sq. ft.
4 x 6 x 12	1.25 sq. ft.
2 x 8 x 16	1.20 sq. ft.
4 x 8 x 16	1.40 sq. ft.

VENETIAN BLINDS—

40c per square foot and up. Installation extra.

WINDOWS—STEEL—

30c per square foot, $5 for ventilators.

A CHART FOR CHANGING CITIES

"A Chart for Changing Cities," is the name of a useful pamphlet just published by the California Housing and Planning Association. It gives a progress report on urban redevelopment, reviewing the record to date and surveying future possibilities.

With its headquarters at 402 Jackson Street, San Francisco, the Association's 1944 program is centered on the following major objectives:

"Enough war housing in California to meet the full needs of the Pacific offensive as they develop.

"Conversion to peacetime production of California's war industries (such as steel, light metals, rubber, ship and aircraft plants) as soon as their war use ceases, with emphasis on full employment and adequate housing for workers.

"Assistance in devising a practical program for the post-war transfer of demountable war housing to farming areas, as the first step toward an adequate rural housing program.

"Support for a large scale post-war program of slum clearance, redevelopment of blighted areas and city rebuilding, primarily by private enterprise, with public enterprise responsible for projects that are socially rather than financially profitable, such as parks, playgrounds, schools and low income family housing.

"Continuation of an educational program on the value of regional planning as an instrument for building the sort of livable, modern communities best suited to serve the social and economic needs of their inhabitants, with special emphasis on the Los Angeles, San Diego and San Francisco Bay metropolitan areas, and the San Joaquin and Sacramento Valleys."

LAUCKS EXPANSION

The Monsanto Chemical Company of St. Louis is a new entrant to the West Coast industrial field through acquisition of the I. F. Laucks properties of Seattle, world's largest manufacturers of plywood glues. The transaction also includes Laucks interests in Portsmouth, Virginia, Lockport, N. Y., and Stanbridge, Quebec. The merger is effected through an exchange of stock and no changes in the Laucks personnel are contemplated, according to I. F. Laucks, president.

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1944 BUILDING TRADES WAGE SCALES (JOB SITE) NORTHERN CALIFORNIA

Six- and seven-hour day eliminated on all Government Work. A. F. L. - O. P. M. Agreement calls for eight-hour day.

NOTE: Predeterminations by the Department of Labor, as of July 1 (the wage-freezing date) have not yet been made in all of the counties listed. The wage scales shown are those being paid and in effect mostly by agreement between employers and their union.

CRAFT	San Francisco	Alameda and Contra Costa	Fresno	Marin	Sacramento	San Jose	San Mateo	Vallejo	Stockton
ASBESTOS WORKERS	1.50	1.50	1.25	1.50	1.50	1.25	1.50	1.50	1.25
BRICKLAYERS	1.87½	1.87½	1.75	1.87½	1.75	2.00	1.79-1/6	1.75	1.50
BRICKLAYERS, HODCARRIERS	1.40	1.40	1.05	1.40	1.05	1.50	1.35	1.50	1.14
CARPENTERS	1.50	1.50	1.25	1.43¾	1.37½	1.37½	1.43¾	1.50	1.37½
CEMENT FINISHERS	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
ELECTRICIANS	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70
ELEVATOR CONSTRUCTORS	1.75½	1.75½	1.75½	1.75½	1.75½	1.75½	1.75½	1.75½	1.75½
ENGINEERS: MATERIAL HOIST	1.50	1.50	1.25	1.50	1.37½	1.62½	1.50	1.37½	1.25
PILE DRIVER	1.75	1.75	1.40	1.75	1.75	1.75	1.75	1.75	
STRUCTURAL STEEL	1.75	1.75	1.60	1.75	1.75	1.75	1.75	1.75	1.60
GLASS WORKERS	1.40	1.40	1.12½	1.40	1.12½	1.21	1.40	1.40	
IRONWORKERS: ORNAMENTAL	1.60	1.50	1.60	1.50	1.60	1.31¼	1.50	1.50	
REINF. RODMEN	1.50	1.50	1.60	1.50	1.50	1.60	1.50	1.50	1.25
STRUCTURAL	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.37½
LABORERS: BUILDING	1.00	1.00	.90	.87½	.95	.90	.93¾	.90	.90
CONCRETE	1.00	1.00	.90	.87½	.95	.90	.93¾	.95	1.00
LATHERS	1.75	1.75	1.50	1.75	1.60	1.75	1.75	1.75	1.75
MARBLE SETTERS	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
MOSAIC & TERRAZZO	1.25	1.25	1.12½	1.25	1.15-5/8	1.12½			
PAINTERS	1.50	1.50	1.28-4/7	1.50	1.43	1.50	1.42-6/7	1.64-2/7	1.37½
PILEDRIVERS	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54
PLASTERERS	1.75	1.83½	1.75	1.75	1.75	2.00	2.00	1.75	1.83-1/3
PLASTERERS' HODCARRIERS	1.50	1.60	1.40	1.50	1.18¾	1.50	1.75	1.50	1.50
PLUMBERS	1.70	1.70	1.53-1/8	1.70	1.68¾	1.62½	1.70	1.70	1.50
ROOFERS	1.50	1.50	1.25	1.37½	1.37½	1.37½	1.25	1.37½	1.37½
SHEET METAL WORKERS	1.50	1.50	1.50	1.50	1.50	1.50	1.37½	1.50	1.50
SPRINKLER FITTERS	1.58	1.58	1.53-1/8	1.70	1.68¾	1.62½	1.70	1.70	1.50
STEAMFITTERS	1.75	1.75	1.53-1/8	1.70	1.68¾	1.62½	1.50	1.70	1.50
STONESETTERS (MASONS)	1.87½	1.87½	1.50	1.75	1.75	1.50	1.75	1.75	1.50
TILESETTERS	1.50	1.50	1.37½	1.50	1.37½	1.50	1.50	1.50	1.37½

Prepared and compiled by
CENTRAL CALIFORNIA CHAPTER, ASSOCIATED GENERAL CONTRACTORS OF AMERICA
with the assistance and cooperation of secretaries of General Contractors Associations and Builders Exchanges of Northern California.

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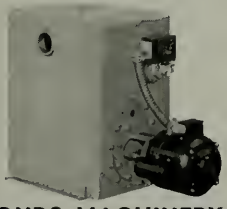

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$26 BILLION WORKS PROGRAM

A $26 billion program of public works and other public construction, consisting entirely of urgently needed and desirable projects, was forecast for the five-year period starting twelve months after the end of the war, in a statement issued by Russell G. Creviston, general post-war chairman of The Producers' Council.

Although the volume of new public construction would be less than half as great as the estimated amount of private building during the period in question, the expenditures for needed projects to be financed by Federal, state, and local governments would be sufficient to provide annual employment for more than 2,000,000 on-site and off-site workers and should remove all need for resorting to work relief plans or the building of non-essential public projects merely to provide employment after the war, Creviston stated.

Pointing out that the estimates, prepared by the Council's Market Analysis Committee, are based on the level of prices expected to prevail after the war and on the assumption that the national economy will be maintained on a plane which will provide jobs for virtually the entire labor force of the nation, Creviston stated that adequate advance planning of needed projects by public officials also is a controlling factor. Recent reports indicate that planning of post-war public projects is gaining momentum but many localities still have failed to make a satisfactory start on this important responsibility.

"Less than $1 billion of municipal public works construction is now ready for contract, according to a recent survey," he stated. "Even if planned Federal and state projects are added, the total will fall far short of $3.5 billions of public construction which our committee believes can be accomplished during the first 12 months after the war. At the very minimum, blueprints should be ready in advance for much more than this first year's work in order to assure a steadily expanding volume and to reach the higher levels of the succeeding five-year period.

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"The average annual volume of public construction during the five-year period is estimated at $5.3 billion, of which highway construction, both state and Federal, is expected to account for $2 billion. This would mean a total expenditure for highways of $10 billion during the five years, exceeding any past record.

"Construction of public buildings, water and sewerage systems, school buildings, and other essential public projects will amount to $2.8 billion per year, according to the committee's estimate. Industrial construction by the government is estimated at only a nominal figure, while military and naval construction in continental United States should not exceed an average of $280 million after the war, in the committee's opinion.

"Public residential construction, which was valued at $205 million in the pre-war year 1940 and which reached a peak of about $800 million in 1943 to supply war housing needs, is estimated at only $140 million a year after the war, on the assumption that the Federal government will retain its recently announced policy of encouraging private enterprise to accept primary responsibility for the housing of low-income families, thus greatly reducing the volume of public housing."

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• ARCHITECT AND ENGINEER

Volume 157 No. 2

FRED W. JONES, Editor
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MICHAEL GOODMAN, Post-War Planning
L. H. NISHKIAN, Consulting Editor
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*In the Service

★

MAY

COVER: View of San Francisco's two famous bridges; Yerba Buena Island in the foreground, Alcatraz to the right.

PHOTOGRAPHY: Views of San Francisco Waterfront, Gabriel Moulin Studios and S. F. Call-Bulletin.

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RUNNING FIRE — by MARK DANIELS

• *WANTED—A MARTYR*

In the good old days when the so-called government of predatory barons began to over-ride the people, martyrs would step up to sacrifice their lives in a crusade to prove that the people were being double crossed, trimmed, duped or otherwise persecuted. Let the burgomaster but intimate that he was going to take over the outer lanes of the highways and byways for the exclusive use of the town cryer, someone was sure to jump up and warn the old boy that, if the people's rights were tampered with, he would go martyr on him. And he did it, too.

But the martyring motive has melted from modern reform. Humans have softened to where it is easier to move than pay toll, and Oakland is not so far away. How many people are injured or frightened into an early grave by stepping off an inner track Market Street car smack into an oncoming outer track car, is not generally known, but it has become so common that we ignore it. What is needed is a martyr who will hurl himself in front of the onrushing car and sacrifice his otherwise useless life to the fame of having wakened the people to their persecutions. With the O.P.A. getting in stride, one might as well, anyhow.

The line forms on the right.

• *TOPPED*

An opinionated out-of-town small contractor paid a secret after-work visit to the client of a very good architect to tell the client how the architect was wasting money by duplicating elements in the house so as to build up the cost and hence the architect's fee.

"For instance," he said, "He's got two flights of stairs up to the second floor. One's all you need and all you can use at a time. If he's afraid of a traffic jam make it wide enough to go three abreast.

This account had held about first place in the top flight of its class until the "COCKLEBUR" came out with the following:

"The story is told about a wealthy man who was desirous of building a luxurious hunting lodge in the north woods of Wisconsin. After having his plans drawn up by a famous architect, he dispatched them to a local carpenter with instructions to go ahead and build it according to the blueprints.

Scarcely a day had passed when a postcard arrived at the rich man's house, saying: "The plans is all wrong. I can't do nothing till I get them straightened out!"

Being in a hurry to get the house finished, the man sent a letter post-haste assuring the workman that the plans were alright and to proceed as ordered.

By return mail came the following:

"I don't aim to saw a plank until I get them plans straightened out. Why if I was to build that house the way it's laid out you'd have two bathrooms!"

• *T. L. M.*

The Little Man was a sight to arrest attention as he came down Solari's entrance passageway. There was a six-inch cuff on one trouser leg and none on the other. He wore a home made scarlet velvet vest adorned with a tin red cross badge and a large "V" of the same metal. From a coat pocket limply hung a damp, blue handkerchief. I gazed in perplexity as he raised my old fashion to his lips.

"I have been O.P.A'd again," he said. "This sartorial effulgence is a result of patriotic efforts to obey the edicts of that august body which orders cuffs off your trousers while your clothes are being made and rescinds that order before both legs of that garment can be finished: that prohibits the sale of a vest with a double breasted coat and forces us to buy a vest separately at the price of the suit or catch a deathly cold. I'm not a walking plea for the return of Joseph's Coat or the pattern of it. I am merely another helpless member of the Oppressed Public Asses."

Perhaps it was oppression that prompted him to appropriate my re-fill, but it didn't look that way.

• *REVISION NEEDED*

In June of last year, "Running Fire" opened with the story of Professor A. Petrach Bean, under the caption of "The Post-War House." In that item, the various predicaments in which the Professor found himself in his efforts to operate modern gadgets were discussed at length. Of course, the same theme could be enlarged upon and considerably protracted, but upon reading Arthur Caylor's article on page 7 of the April 15th, 1944 issue of the San Francisco News, it became evident that there were many phases of the subject of the modern house which have passed right over the head of the author of "Running Fire." This might be of little or no surprise to most readers; nevertheless, I would be tempted to essay a repeat performance were it not for the fact that I am forbidden to enter the field of pornographic literature.

The report of the John B. Pierce Foundation reads like an excerpt from Rabelais. A slight injection of technical aspects of the subject of "Two in a Bed," might add a certain piquancy which is missing in such bald statements as "fifty per cent of the husbands report no activity after getting into bed." The excerpts from the data of the Pierce Foundation, as published in Business Week, show clearly that the subject was given no technical analysis, for the various percentages as enumerated do not check up. Just what happens to the missing 10% when 50% of the men and 40% of the women report inaction is not explained, which is one phase of the report that offers a subject for considerable meditation and research.

Mr. Caylor's clear, logical and concise explanation of how to put living-room furniture in the closets and devote the living room to the hanging of clothes and storing of gadgets, shows him to be a man of broad experience in the line of so-called modern architecture. Nevertheless, if he were a good sport, he would tip off to lesser and far more obscure scribes the discovery of such items as the Pierce Foundation reports, particularly when they are down the struggling scribe's alley.

THE ART OF JOSE GARCIA NAREZO AT DE YOUNG MEMORIAL MUSEUM

The de Young Museum is now holding the first formal exhibition outside of Mexico of the art of Joe Garcia Narezo. It was in Mexico City last December that the paintings of the twenty-one year old artist received their initial showing. The exhibit now on view in San Francisco is an extremely comprehensive one: 120 works include oils, watercolors and gouaches, drawings and montages which cover a period of eight years, from 1936 to 1944, thereby tracing the changes in the development of this prolific and highly imaginative young painter.

Jose Garcia Narezo is the only child of a Mexican mother and Spanish father. He was born deaf, but through the diligent care of his father, he has learned to speak a little. Since all of his impressions must naturally be visual, it was a source of joy to Jose to be able at an early age to describe graphically the beauties he saw—wonders not only of his external surroundings, but those fancied in a most fertile imagination. Thanks to a resourceful and patient father who has been his son's guide and teacher, this talent for drawing was fostered from the beginning.

Until the outcome of the Spanish Civil War made it imperative for Loyalist sympathizers either to seek a haven elsewhere or risk being imprisoned, Jose lived in his father's country. During the outbreak of the war, the boy created a series of brutal impressions which reflected his restlessness and anguish and his personal need to record in document the tremendous chaos he was witnessing. A group of these studies are now being shown, along with subsequent works developed from them. Since the Spanish conflict, Jose has lived in Mexico where he has unceasingly labored to perfect his art. It was here, at the artist's home, that through a Mexican friend, Richard Gump, San Francisco art dealer, discovered this hitherto unknown talent.

The young artist has written down his aspirations, the Creed of his work. He says, "I would like to unite, in my art, all that is plastic with poetry, tenderness with sternness, music with silence, the dream with the realtity, the classic with the modern, and the present with the future."

Visitors will be able to view the works of Jose Garcia Narezo throughout the month of May and part of June.—D. N.

CALIFORNIANS PRAISED FOR THEIR VARIED WORK IN WATER COLORS

According to Art Digest, "In California there are probably more good watercolorists per square mile than in any other state." While not all the artists represented in this show at the San Francisco Museum of Art are Californians, the greater number of them are. Their range of pictorial material and their personal interpretations of it are as varied as are the land and seascapes of the state itself and as different as are its valleys, cities, towns and the people who inhabit them. Almost every mode of expression is represented, from realistic to abstract, illustrating the wide choice open to both the artist and the public in the art of today.

CONCERTO Emilio Pettoruti

This important canvas represents a personal development of abstract painting as one leading trend in the Latin-American exhibition shown in connection with the Pacific Arts Association regional meeting at the S. F. Museum of Art. Additional paintings by this well-known Argentine artist, and typical works by leading Mexican, Peruvian, Colombian, Brazilian, Cuban and Uruguayan contemporary artists, were included in the showing.

Leading local watercolorists are members of the society, though it originated in Southern California. The society also organizes an annual traveling exhibition which goes to museums throughout the country and, at intervals, exhibitions in the Riverside Museum in New York which have great importance in bringing to Eastern attention the quality of Western watercolor painting.

The exhibition, recognized as an event of more than regional importance, has been shown at the Los Angeles County Museum of Art, and at the Santa Barbara Museum of Art.

DOLLS OF MANY NATIONS ON DISPLAY AT DE YOUNG

Dolls of every size, shape, nationality and material may now be seen at the de Young Museum in San Francisco's Golden Gate Park. These "visitors" come from the enormous collection of Miss Helen Maria Nelson, a Finnish woman who resides in San Francisco and who has been accumulating various doll types during the past seven or eight years.

The exhibition is truly an international assemblage. Dolls of most of the European countries are displayed in native costume. The Pacific Islands are represented; colorful puppets and dolls of wood and straw from Java, a wooden peddler from India, exotic Balinese dancers made of raffia. An entire case is devoted to Chinese dolls, and besides such general types as the mandarin, scholar, fisherman, and typical family group, are replicas of Confucius, Dr. Sun Yat Sen and Chiang Kai-Shek.

In one section are the native American peoples, the Eskimos, the Hopi, Sioux, Navajo and other North American Indians, the Latin Americans and the Mexican "corn husk" dolls. Another case houses examples of historical interest: Abraham Lincoln is there, along with Priscilla Alden of "Why don't you speak for yourself, John?" fame. Perhaps the most amusing of this group is the Kentucky hillbilly couple with heads made of walnuts.

A collection of miniatures, some of which are so small that one needs a magnifying glass to see all the details, completes the showing. Here are the dolls for "special occasions," the ones to be worn on the lapel, or for use as favors. "Pennie Woodin" is most likely the most interesting doll in the exhibit. She is a native of Britain, a small crudely made wooden doll which during Victoria's time was sold for a penny to many poor children who otherwise might never possess a doll of their own.

In an adjoining gallery the museum has gathered many examples of finer Victorian dolls, from its loan and permanent collections. These figures, complete with trousseau, occupy much of the display. In addition, an outdoor "stage set" has been constructed and on green grass sit elegant Victorian ladies drinking their afternoon tea and conversing (though most inaudibly) over the garden fence.

Both doll exhibits remain on view through May.

PAUL SCHMITT WATERCOLORS AT LEGION OF HONOR PALACE

Paul A. Schmitt, whose watercolors are being shown at the Palace of the Legion of Honor, first studied art at the California School of Arts and Crafts in Oakland, at the University of California and later at the California School of Fine Arts in San Francisco. He started exhibiting his paintings in 1926 and thereafter won awards at the Sacramento State Fair, the Oakland Art Gallery, Seattle Art Museum and the Legion Palace. He is a member of the American Artists Professional League, the Thirteen Watercolorists, and is one of the Directors of the Sanity in Art Group. Mr. Schmitt has executed numerous commissions in mural painting—including the one in the Western Merchandise Mart — and is now working on a series of large murals for a Catholic church. He also did a series of historic ships for Miss Florence Moore of the Moore shipbuilding family.

WORK OF JACK STARK, NATIVE SON, RECEIVES PRAISE OF ART DIRECTOR

The Santa Barbara Museum recently concluded one of its most successful presentations of a contemporary American artist. The one hundred paintings and drawings by native son Jack Gage Stark, who lives and works in Santa Barbara, were enthusiastically offered by Director Donald J. Bear, and as enthusiastically received by the press and the public.

A review of the show by Bear in the Press-News speaks of the artist's "aristocratic power," the "sense of humor, the wit, even the element of caricature" in his canvases; praises his color and his light, as "gossamer, silver and moonfire spun in trembling webs of white."

In a foreword to the catalogue, fellow-artist Rico LeBrun says: "Stylizations are easy to achieve; but style is uncommonly hard to find. Yet Jack Stark's work has style but no trappings of tricks. His fierce concern for preserving painting as a thing alive is sustained by an amazingly sophisticated wisdom, for any given color he handles will circulate, multiply itself, permeate the ensemble, build up a picture with a vital flow. This, for all its lack of punctual edges and neat ruling, is beautifully organized painting."—Art Digest.

BOMB WRECKS WORKS OF ART IN LONDON AUCTION HOUSE

A recent news dispatch from London reported that a gentleman who had gone to an exhibition at the auction house of Robinson & Fisher returned the next day to attend the sale and found the establishment little more than a pile of rubble. The well aimed bomb, in a not-so-token Luftwaffe raid, had also caught the firms of Spink & Sons, and art photographer A. C. Cooper. At the nearby Koester Galleries, some paintings were destroyed, some damaged.

MADONNA AND CHILD Peter Paul Rubens

From permanent collection at M. H. de Young Memorial Museum, Golden Gate Park, San Francisco.

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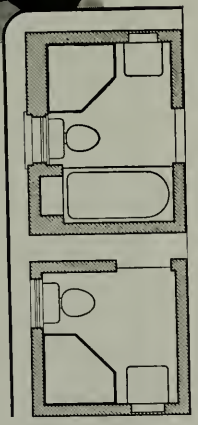

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LAST MORGAN ART COLLECTION SOLD AT AUCTION IN LONDON

The last remnants of the once fabulous collection of J. Pierpont Morgan were sold at auction recently in London. The 147 items in the sale included mezzotints, old and modern drawings, old and (comparatively) modern paintings of many schools. They were removed from Wall Hall, Aldenham, Herts, the Morgan country house near London.

A set of four superb Italian primitives, "Scenes From the Life of Saint John the Baptist" by Giovanni di Paolo da Siena, was withdrawn a few days before the sale and purchased for the National Gallery in London—to the discomfiture of more than one private collector. It is reported that one New York dealer had cabled a client's bid of $100,000 for the set.

"ARTISTS FOR VICTORY" EXHIBITION HAS BEEN TEMPORARILY CALLED OFF

Arthur Crisp, of the Committee in Charge of the Artists for Victory's Good-Will Exhibition, recently mailed out a form letter to all artists who have paintings in the Britain-bound collection.

The letter explained that while it had every assurance "throughout the assembling of the exhibition" that space would be made available by the Ministry of Transportation and the Office of War Information, the organization was informed "during the exhibition," that shipments of everything but essential war materials had been cancelled for the time being.

"Artists for Victory regrets the postponement, but feels that the possibility of an early shipment does not seem remote."

PACIFIC ARTS ASSOCIATION HOLDS REGIONAL MEETING IN SAN FRANCISCO

Because of transportation difficulties, regional meetings only are being held this year by the Pacific Arts Association. The local group held a two days meeting at the S. F. Museum of Art early in May, featuring Constance Jordan Henley, author of "Grandmother Drives South," who, besides a private exhibit, presented movies and colored slides of the territory traversed by the Pan American Highway. Mrs. Henley is a native of California. Her exhibit included textiles, pottery, carvings, embroideries and photographs reflecting the life and arts of the people in the countries she visited.

On May 6 Dr. Enrico Verissimo, Brazilian novelist now a guest professor at the University of California, spoke on "Friendship Through Cultural Understanding" and Dr. Grace L. McCann Morley, Director of the Museum, discussed "Aspects of Latin American Art."

ART NOTES

One hundred posters done by San Francisco school children in the junior high schools, were judged for originality and design at the San Francisco Museum of Art, May 10. At the close of the show the posters were loaned to local merchants for window display.

Dorothy Sklar Phillips, native Californian and pupil of Millard Sheets, recently made her debut exhibition at the Studio Guild in New York City. Her hills and valleys, deserts, villages—even tree forms and color—are strictly of the West Coast variety. The exhibition went on tour immediately after closing in New York.

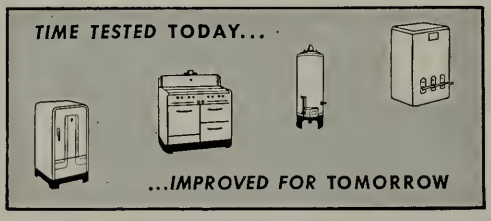
THE DOCTOR'S RESPONSIBILITY CONTINUES AFTER HE PERFORMS A SUCCESSFUL OPERATION.
THE ARCHITECT'S, THE BUILDER'S RESPONSIBILITY GOES BEYOND DESIGN AND CONSTRUCTION.
SPECIFICATIONS

BOTH MUST THINK AHEAD—

THE surgeon's goal is *lasting* recovery. The architect's and builder's goal is *permanent* liveability. So many thousands of home owners are happy with their gas heating, cooking, hot water service and refrigeration, who can doubt that the most popular post-war specification will be "All Gas"? ☆ *Meanwhile, War Bonds!*

THE PACIFIC COAST GAS ASSOCIATION

GAS FUEL



☆ SERVING THE WEST IN WAR AND PEACE

IN THE NEWS

DESIGNS, BUILDS ADOBE HOUSES

Fifteen years of domestic happiness in an adobe house would seem to be long enough for an architect to convince himself of the practicability of such a home. Having spent a considerable part of his professional career studying adobe construction and applying that knowledge to extensive building with that material, Clarence Cullimore of Bakersfield has come to be recognized as an authority on the subject and in appreciation of his valuable research work the American Institute of Architecture has conferred on him a Fellowship in the Institute.

CULLIMORE

Cullimore is a graduate of the University of California, School of Architecture. Two years ago he was awarded a Master Degree in Architecture by the University of Southern California for his contribution to the profession of four volumes on adobe design and adobe construction. Architect Cullimore is also author of the book, "Old Adobes of Forgotten Fort Tejon," and articles by him have appeared in the Los Angeles Times, Architect and Engineer, and other publications.

HOME FREEZING UNITS

Post-war housing plans are reasonably certain to include space provision for the reception of freezing units. Since Pearl Harbor many home owners have been using old ice cream cabinets for freezing their victory garden truck, fruit and meat. The freezing does not in any way impair the color, texture, flavor or nutrient value of the food. The trade predicts that after the war there will be a demand for at least 1,000,000 home freezers, manufactured as a separate unit or combined with electric refrigerators. Space for the reception of this equipment must be provided by architects and builders and this may apply to apartment houses as well as private dwellings.

STOCKTON HOME PLANNING INSTITUTE

Support of a proposed home planning institute at the Stockton Evening High School this fall was pledged by the Stockton Section of the State Association of California Architects, at a recent meeting presided over by Frank V. Mayo. The institute will deal with the planning, construction and furnishing of homes and Mayo named Architects J. U. Clowdsley, Victor Galbraith and Peter L. Sala as a committee to cooperate with Dr. David Greene of the school dept.

REBUILDING OAKLAND LANDMARK

From plans by Frederick H. Reimers of San Francisco, Oakland's landmark, the old Galindo Hotel where General U. S. Grant was a guest in 1879, is being rebuilt as an apartment house with 150 two-room units for war workers. The improvements are expected to be completed by mid-summer.

The Galindo Hotel, located at Eighth and Franklin Streets, was erected in the seventies by Francisco Galindo, scion of one of the first families in the pioneer town of Temescal. Costing $500,000, the hotel is a three-story structure, with a basement and attic. It is built of brick and stone, with timbers 68 feet long by 12 inches square and joists 42 feet long by 14 inches by 2 inches. So well was it constructed that it came through the 1906 earthquake unscathed and still is in excellent condition. Originally it had 125 rooms, each with a fireplace, which accounts for the forest of brick chimneys, glaringly conspicuous from the street. One very special suite had a private bath, but the guests in the other 124 rooms had to get along with three bathrooms per floor and a communal line of wash basins.

HITS TOP OF LADDER

When Frank Spencer took over the old Cahill & Hall Elevator Company and started the Spencer Elevator Company in the early nineties, there was a young chap named Skaife working for Cahill & Hall as an apprentice mechanic. "That boy is a comer," Spencer remarked to the writer, in announcing he had put Skaife on his payroll. It is regrettable Spencer could not have lived to see his prediction fulfilled. Quite recently Arthur F. Skaife, 12 years manager of the San Francisco district of the Westinghouse Electric Elevator Company, was promoted to Pacific Coast district manager, a rather enviable position which consolidates all activities of the company in an area comprising the Pacific Coast states, five Rocky Mountain and southwestern states, Alaska and Hawaii.

SKAIFE

Skaife is a native of Alameda. He has seen 48 years' active service in the elevator business, knows it from A to Z. When Westinghouse took over the Spencer Company, Skaife, who was then vice-president of Spencer, became Westinghouse's manager. Owner of a comfortable home on the Tunnel Road in Berkeley, Skaife is a member of the San Francisco Electric Club, San Francisco Chapter of the Producers' Council, and the Commercial Club.

LETTERS

PRECAUTIONARY CAMOUFLAGE

Editor,
Architect and Engineer:

Having written a review of the latest O.C.D. "Precautionary Camouflage" booklet for the February issue of the Architect and Engineer, I did not expect to escape some degree of censure. As it is, it came from the author, Greville Rickard, architect in Washington, and formerly with the camouflage unit of the National Office of Civilian Defense. Mr. Rickard's letter to me read in part:

"In regard to your well expressed review of the O.C.D. booklet 'Precautionary Camouflage,' appearing in the February number of the Architect and Engineer, allow me please to offer congratulations but also to make objection to the last paragraph which reads:

"'In conclusion, credit must be given to those workers of the Camouflage Section of the 9th Region Office of Civilian Defense in San Francisco and their laboratory associates in Los Angeles, due to whose efforts this thinking originated, and which may form the basis of things to come in Protective Concealment.'

"This paragraph strikes me as distinctly misleading, although doubtless it was not your intention that it should be. A few others who have read it interpret it as likely to give a stranger to the facts the impression that the thinking and preparation of the booklet emanated from those who worked at camouflage in California. I believe that you will be interested in knowing the facts, and knowing them, that you will wish to qualify or correct that paragraph in a future number of the magazine."

* * *

I would like to ask you to reproduce the above part of the letter for the benefit of those who might be interested and who were in closer contact with the Camouflage Section than I was.

I did not imply in my review that the O.C.D. booklet in preparation emanated from the California group; or that they had anything to do with it. Neither did I wish to convey the impression that the thinking on the **whole** subject treated in the booklet originated with the same group. I had an idea that only the briefly treated part in the booklet concerning "area planning" for future purposes developed here in California, at least in its present form, and that is what I meant iin the last paragraph. If this qualification is not sufficient for Mr. Rickard it may be better to take up the matter with members of the now far-flung California group to hear their evidence.

Substantiation of Mr. Rickard's point is convincing enough to me in his letter and such additional evidence as presented in the

(Turn to Page 47)

Although our facilities are devoted to war production, Smoot-Holman still manufactures a full line of industrial and commercial lighting equipment for essential business.
Our production is concentrated on the Pacific Coast, eliminating cross-country shipping, and assuring a more immediate and dependable supply.
Sight-Craft lighting fulfills every requirement for better illumination, whether your needs are for conventional reflectors and luminaries, or for modern fluorescent equipment.
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COMPANY
INGLEWOOD, CALIFORNIA

PLUG
A ~~place~~ for everything!

That's the rule for the dream house of the future. No more tripping over electric cords . . . no triple or quadruple outlets with fantastic festoons of wires running to every corner of the room. The postwar home will demand electrical adequacy in every respect and the backbone of any electrical plan lies in adequate wiring.

Ample electrical convenience outlets and switches in every room, to cope with increased use of home appliances, and wires of sufficient size to carry this load safely and efficiently are two prime considerations in home building.

The architect who gives careful thought to these necessities for convenience and comfort in modern living, is an architect who will assure himself of a host of satisfied clients.

AW ADEQUATE WIRING SERVES AND SAVES — THE KEY TO THE HOME OF TOMORROW

NORTHERN CALIFORNIA ELECTRICAL BUREAU
1355 Market Street
San Francisco

IN THE NEWS

FUND FOR HENRY BACON'S WIDOW

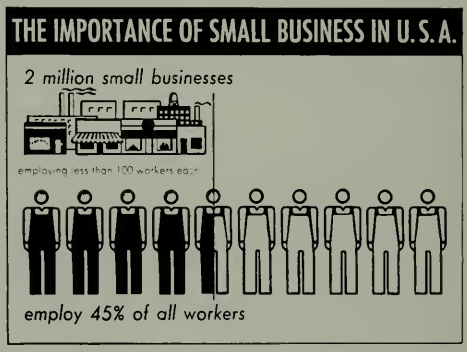
The New York Chapter of the A.I.A. is making a drive for assistance for Mrs. Henry Bacon, widow of the designer of the Lincoln Memorial. This was done at the suggestion of the executive committee of the A.I.A. because Mr. Bacon was, until his death, a member of the New York Chapter. For a long time Mrs. Bacon has been almost completely dependent on the generosity of friends. She is 78 years old and, though in good health, unable to earn a living.

For several years some of her friends have attempted to get Congress to aid her financially. This project was based upon the fact that Henry Bacon spent approximately $27,000 of his own money, over and above fees, to complete his assignment.

POST-WAR SMALL BUSINESS

Special consideration for small business during the post-war reconversion period, and a far-reaching program of national and local assistance to small-scale enterprise thereafter, are proposed in a statement by the Committee on the Special Problems of Small Business of the Committee for Economic Development, 285 Madison Avenue, New York.

Recommendations of the committee as to possible aid to small business locally include:


THE IMPORTANCE OF SMALL BUSINESS IN U.S.A.
2 million small businesses
employing less than 100 workers each
employ 45% of all workers

(1) Local "action groups" to assist local small business to find needed capital at reasonable cost;

(2) Community action to make available at cost such laboratory and research facilities as will help small-scale enterprise to develop and market new products, either through voluntary pooling of the research facilities of the larger firms or through special facilities made available by state universities or other scientific institutions;

(3) Removal, by community agreement, of possible obstacles to small-business enterprise such as may be found in building codes, local tax systems and license fees, and state and local trade barriers;

(4) Community promotion of studies, through existing organization wherever possible, to foster new enterprises particularly adapted to the needs of the community.

UNIVERSITY SCHOLARSHIPS

The 13th annual consideration of candidates for the Kate Neal Kinley Memorial Fellowship is announced by the University of Illinois. The Fellowship yields the sum of $1,000.

Applications will be received up to June 25 for scholarships in the College of Fine Arts, Syracuse University. The scholarships are available to entering students.

Until June 15, applications will be received by George S. Koyl, Dean, School of Fine Arts, University of Pennsylvania, Pa., for two Chandler Fellowships of $1,000 each. They are the Joseph Van Horn Fellowship in Architecture and the Albert Kahn Scholarship.

CARLSON JOINS KRAFTILE

C. W. "Chuck" Kraft, president of the Kraftile Company, Niles, California, announces the appointment of J. A. Carlson as head of the Kraftile San Francisco office. Mr. Carlson was formerly Western Division manager of the Cambridge Tile Co.

At the same time, Mr. Kraft made known that Paul J. Shepard is no longer associated with the Kraftile Company, he having become affiliated with the L. D. Reeder Co., floor and decking contractors of San Francisco.

Mr. Kraft also announces that Clarke E. Wayland, vice-president of the Western Asbestos Company of San Francisco, has been appointed a director of the Kraftile Company, Niles, California.

SANTA MARIA INN

Frank McCoy, owner of Santa Maria Inn, Santa Maria, and who recently sold his interest in the famous El Encanto Hotel, Santa Barbara, has announced the return to the Inn of Fred Pimental, who resigned at the El Encanto to resume his old position as manager of the Inn in place of O. E. Sammann, inducted into the service. Mr. McCoy reports that the Inn is flourishing, despite transportation difficulties.

ARCHITECTS' WOMEN'S AUXILIARY

The Women's Auxiliary of the Alameda County Society of Architects held their annual spring tea at the Town and Gown Clubhouse, Berkeley, April 19. Guest speaker was Richard Gump of San Francisco who gave an interesting talk on "Old Silver." Proceeds of the affair went to the war effort of the Auxiliary.

MALICIOUS PROSECUTION CHARGED

Frank Wynkoop, Bakersfield designer, is the plaintiff in a hearing begun in the Federal court at Fresno, asking $75,000 in damages from the Barber-Coleman Company of Rockford, Ill., manufacturers of airconditioning devices. Mr. Wynkoop charges malicious prosecution.

SINCE 1925 Western Asbestos Co. has made over three thousand installations of Celotex Sound Conditioning. This extensive experience is available to architects and engineers.

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Acoustical Engineers and Contractors
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SALT LAKE CITY, UTAH

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MANY ARCHITECTS HAVE ALREADY STARTED WORK ON POST-WAR HOUSES . . . PRELIMINARY ULANS FOR CLIENTS WHO INTEND TO BUILD AS SOON AS THE WAR ENDS.

PARAMOUNT FIXTURES will be specified for many of these homes because of their distinctive appearance and superior workmanship.

PARAMOUNT FIXTURES are recognized by architects and builders for their distinctive appearance and superior workmanship.

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PORCH and YARD PLANNING Calls for STANLEY HARDWARE

These confining war days have won new respect for cool, screened porches and attractive, practical yards fenced in for privacy. This trend won't be neglected when new home or home addition plans are carried out. Greater attention will be given to "making things livable." And you may be sure that well-known, long-serving Stanley Hardware will fit into this picture.

Stanley items for doors and screens, and in-the-yard uses will be a leading springtime offering as soon as volume manufacture is permitted. Specify Stanley Hardware in your post-war plans. The Stanley Works, New Britain, Connecticut.

Typical Stanley Hardware Items for Porch and Yard

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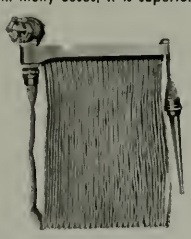

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BOOK REVIEWS

The Architectonic City in the Americas—Significant Forms, Origins and Prospects, by Hugo Leipziger, University of Texas Publication, No. 4407, February 15th, 1944.

I recommend this publication for its erudition, vocabulary and method. Architects, engineers and advanced students of architecture and esthetics should be stimulated by the thesis proposed by Mr. Leipziger, and which, while it may not be entirely unique, is certainly more intense than similar thinking on the subject.

More studies of this sort should be undertaken in related directions, for works of this sort must not be too uncommon as the need for such investigation becomes increasingly evident. One may not agree entirely with the author's thesis. He takes architecture and city planning on this continent which had been considered as archeological material, relates it to other, more familiar to us, expressions of integrated Oriental, Classic and Medieval cultures and draws universal relationships. Through a psychological approach (with which I am not too conversant) he draws conclusions for future guidance of researchers.

The author advocates an intellectual approach to architectural planning, rather than a purely intuitive one. He goes into the question of meaning behind form in architecture and the city. To attain the goal, principles of symbolism must be studied, the theories of architectural tradition and the new scientific investigation. In short the author takes architectural facts, puts wings on them, and looks not squarely at them but around them correlating the ideas behind them in an instructive manner.

There are five chapters in the publication which, incidentally, what with the present binding facilities, could not hold together longer than one reading for this review. The chapters deal with subjects under such heading as, "Architecture's historic mission," "Architecture is symbolic," "Distinctiveness vs. vagueness," "The ecological problem of the modern city" and the one containing great recognition to Frank Lloyd Wright and Le Corbusier.

In the Conclusion with the Appendix for a proposal for a research program, the author advocated the study of subjects which will have to make decisive contributions to the scheme of environmental planning. He advocated that—"this urgent and basic problem be attacked at once by co-ordinating results of modern engineering with those efforts of medical science and institutions getting at communal roots of illness."

To apply "the therapeutical value of a favorable environmental design for dwellings, complete communities, working places, etc., to relieve emotional tension, the by-product of mechanized life immensely aggravated by the war situation"—

Mr. Leipziger suggests study of pre-Columbian architecture and symbolism, which represents one of the best integrated systems of artistic realism or cultural consciousness although it belongs to a scope of imagination different from ours. "The pre-Columbian-like Gothic man or the Chinese had at its disposal the moral encouragement of his entire culture." In discussing Christian spirituality behind the English and Spanish colonial architecture, the author states that the spiritual motivation produced an architecture which acquired a significant role over mere building.

"From this we derive among other things the value, and even necessity, for readopting the monumental approach in architectonic planning as exhibited in pre-Columbian, Gothic and Greek architecture." He goes on further by stating that, "Those communities were not conceived as purely economic or technological problems, as we are inclined to think, or urban and rural planning for the future."

There is a bibliographical section and 40 pages of illustrations which are very instructive. The make-up of the plates and legends on the pages, however, is at times irksome to the reader. In the course of reading I had the impression that the material is just on the edge of balance of the profusion of authoritative references with which the author buttressed his statements. It would have appeared monotonous had the copy run for more than 54 pages as it does. However, the lesson is exciting. As at times past, I suppose it all means that architects and planners must be philosophers.

It is interesting to note that the publication is under the combined sponsorship of the Bureaus of Engineering and the Municipal Research as well as the Institute of Latin-American studies.—Michael Goodman.

The Oxy-Acetylene Handbook, published by Linde Air Products Company, 30 E. 42nd Street, New York, N.Y. Price $1.50.

Fulfills an urgent need, long felt by both student and experienced welding operators, for a complete, comprehensive, and authoritative textbook on basic oxy-acetylene welding and cutting procedures. This new, durably bound, 600-page manual is invaluable as a guide for self-instruction and also as a standard classroom textbook in vocational and trade schools, technical high schools, and engineering colleges. It covers the entire range of the oxy-acetylene process, giving clear, easy-to-follow instructions for handling all the common commercial metals, together with simple explanations of the fundamental principles of the various methods of depositing and controlling molten metal.

A GLIMPSE OF THE WATERFRONT DISTRICT, SAN FRANCISCO
Inset shows area under consideration for conversion to use of the World Trade Center, Warehousing, etc.

STUDIES FOR A WORLD TRADE CENTER, SAN FRANCISCO

Class Project in Design, School of Architecture, University of California, Prof. Michael Goodman, Instructor in Charge.

Emphasis on planning devoted to making cities livable must not overshadow the fact that there is a growing interest to organize and alter business districts.

Not since 1929 had business set about to plan its own district devoted to a unified purpose. In fact, seldom had business done so before. At present such cities as New York, Detroit, Cincinnati, Chicago and Los Angeles are planning types of developments in response to a compelling necessity to expand, protect and promote their leadership in various fields of business and marketing.

This class project calls for studies of the physical stage of planning in which architects and engineers are to participate. While the design character and the development of the chosen district (see block map) may be suggested by certain current formulae, the controlling element in the final scheme will be the needs and standards which express the kind of a business center the foreign trade and related business may want in the near future.

The problem is pertaining to the development of an old city district and its component areas with the purpose of studying the future design of an Office Building zone of the World Trade Center. Other combined studies are in progress or are completed for a Warehousing Zone, Trades and Terminal buildings to be placed in areas within the district designated.

Sketches were to be prepared incorporating certain guiding principles and adherence, wherever feasible, to the general provisions of the master plan as set up by the Planning Commission of the City of San Francisco. In quoting actual publicity for the project, it was brought out that, "While San Francisco is geographically favorably situated and is experiencing wartime ascendency as a port, post-war facelifting will have to be planned in order to insure foreign trade benefits." To do this we had to choose a site and provide new use for it by planning to build attractively with low obsolescence quality. We had to provide, "the best business quarters for inducing exporters and importers as well as manufacturers to locate here and to encourage foreign buyers and sellers to come to San Francisco to do business," and "to provide shippers with permanent facilities, to expedite their business and to make it less expensive for them to operate here. Such economies will be effected in the reduction of time in filing of consular invoices, customs declarations, visits to banks, steamship company offices, etc." Manufacturers with offices in the Center may also find it advisable to locate stocks here to secure sales and assure quick delivery. "The Center

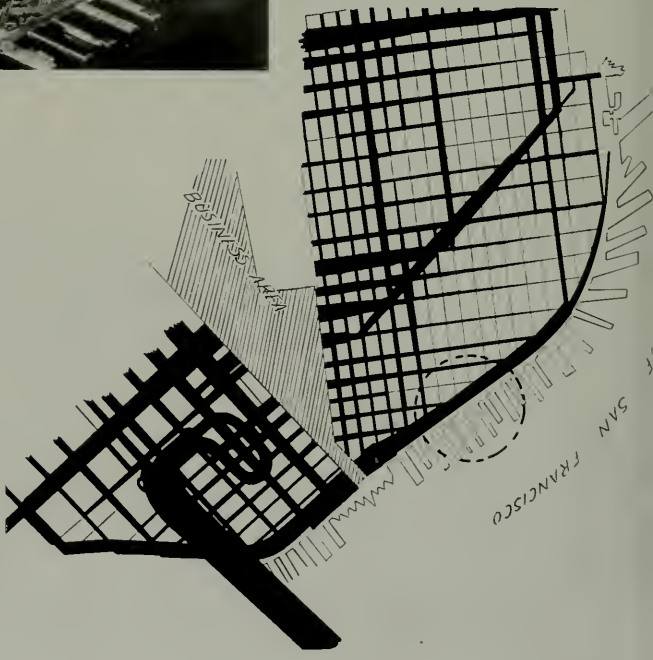
(Turn to Page 20)

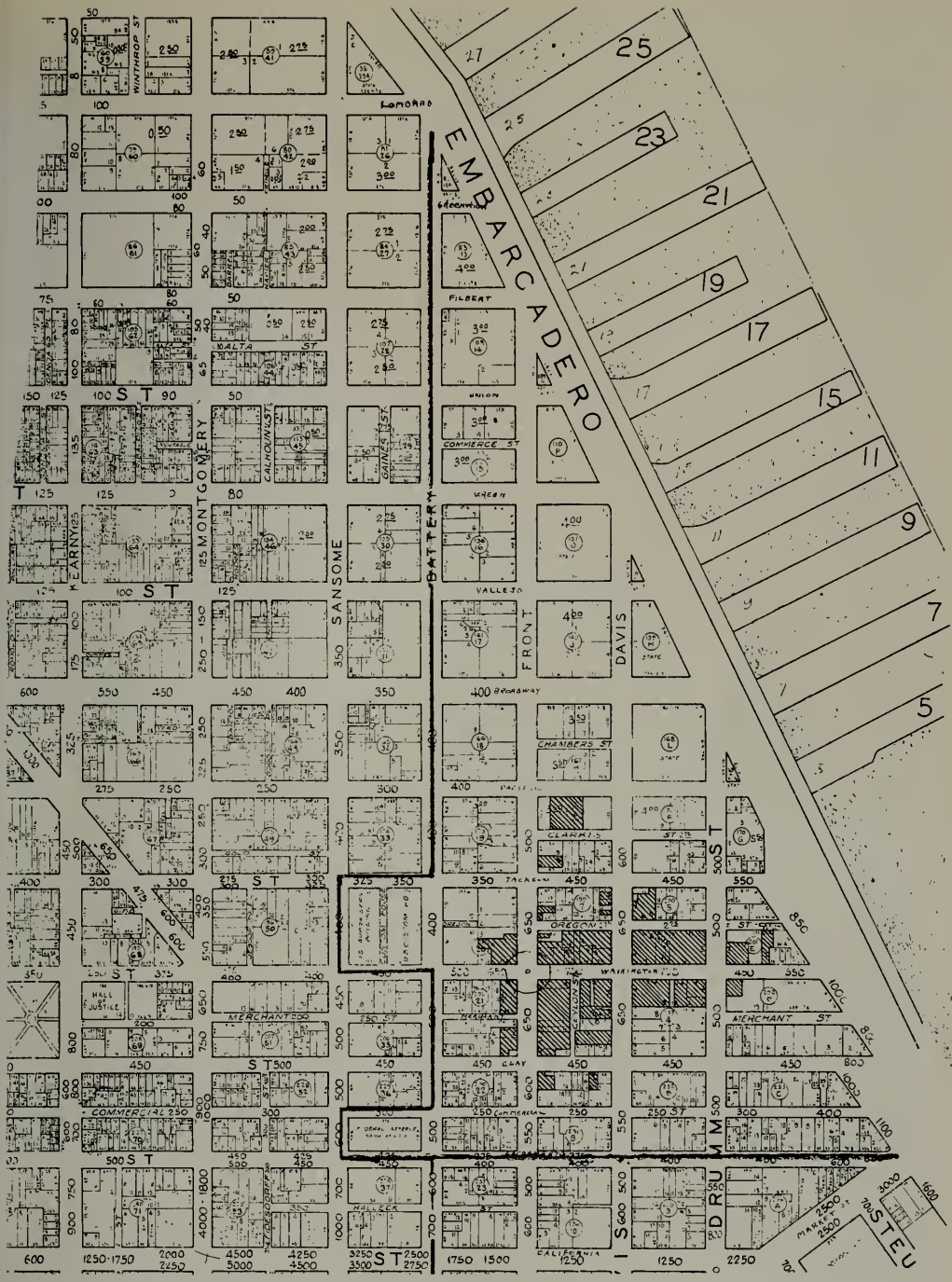
ACKNOWLEDGMENTS: Gabriel Moulin Studios for photos on Pages 14, 15, 16, 25. Call-Bulletin for traffic photos (2) foot of Page 25.

Part of 23-mile continuous shore drive to be improved under the San Francisco Master Plan.

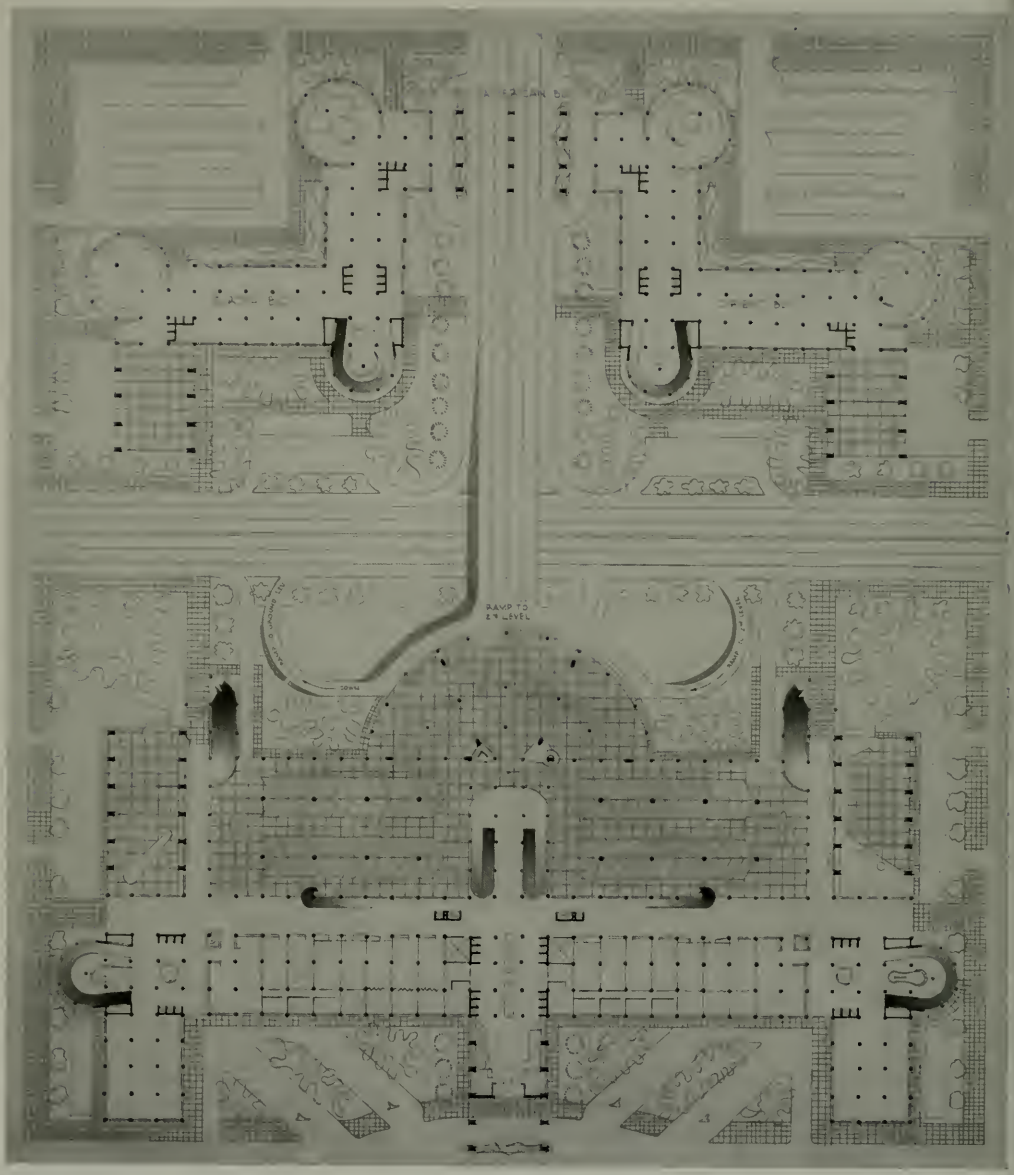
New roadway connections along the Golden Gate and the Freeway on the Bay Shore are proposed to complete a useful traffic artery and a notable scenic highway around San Francisco.

At right is a diagram showing combined circulation on primary streets with the district under consideration indicated by circle. (See other details in text.) The site leads a singular existence.



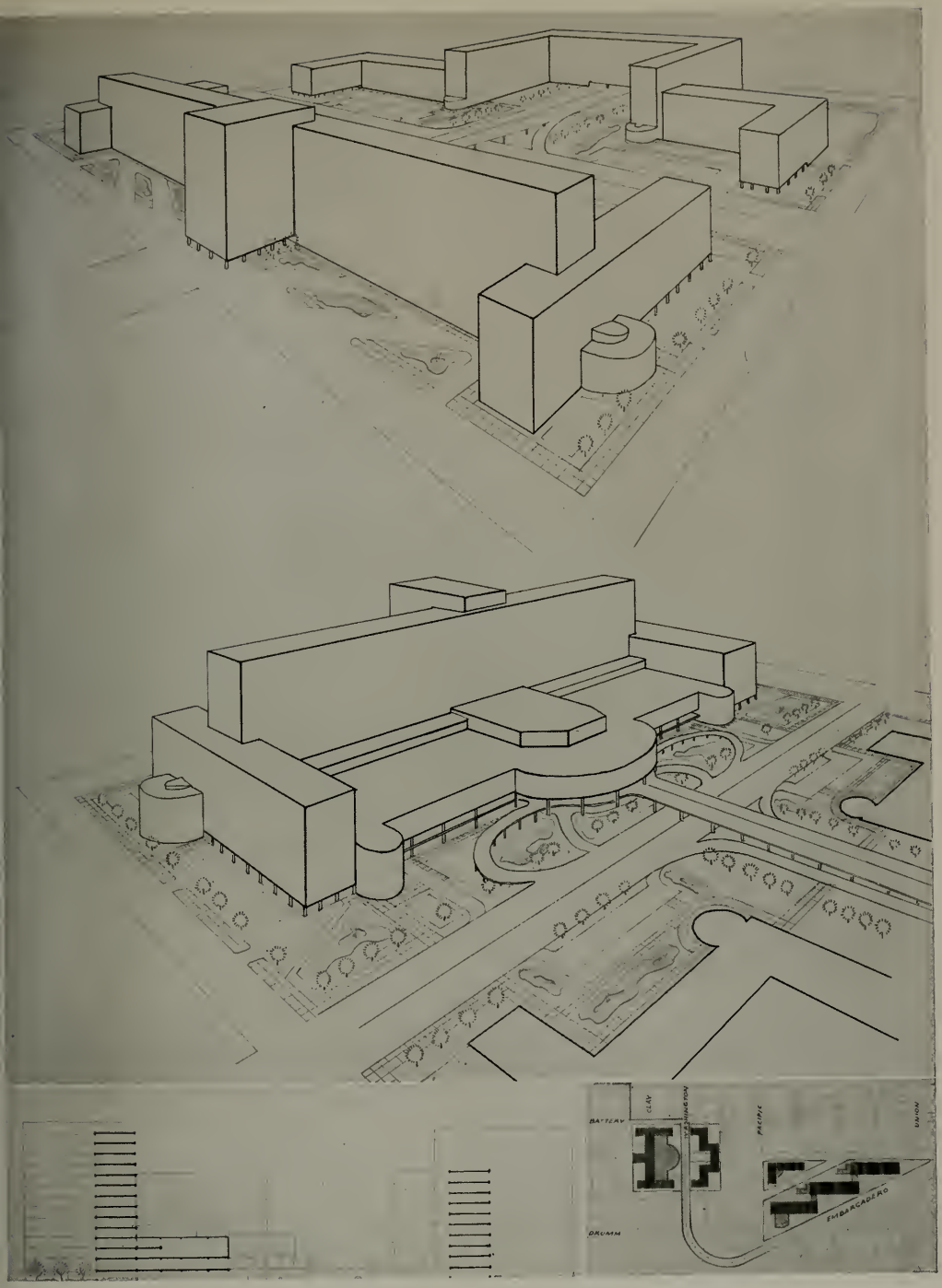


BLOCK PLAN OF DISTRICT UNDER CONSIDERATION MARKED BY BLACK LINE
Shaded areas are at present occupied by the San Francisco Produce Market. World Trade Center is grouped around area indicated by circle. Area between Pacific and Battery Streets is relegated for study of the Warehousing Zone. Blocks containing property not to be condemned are located in the intervening areas.

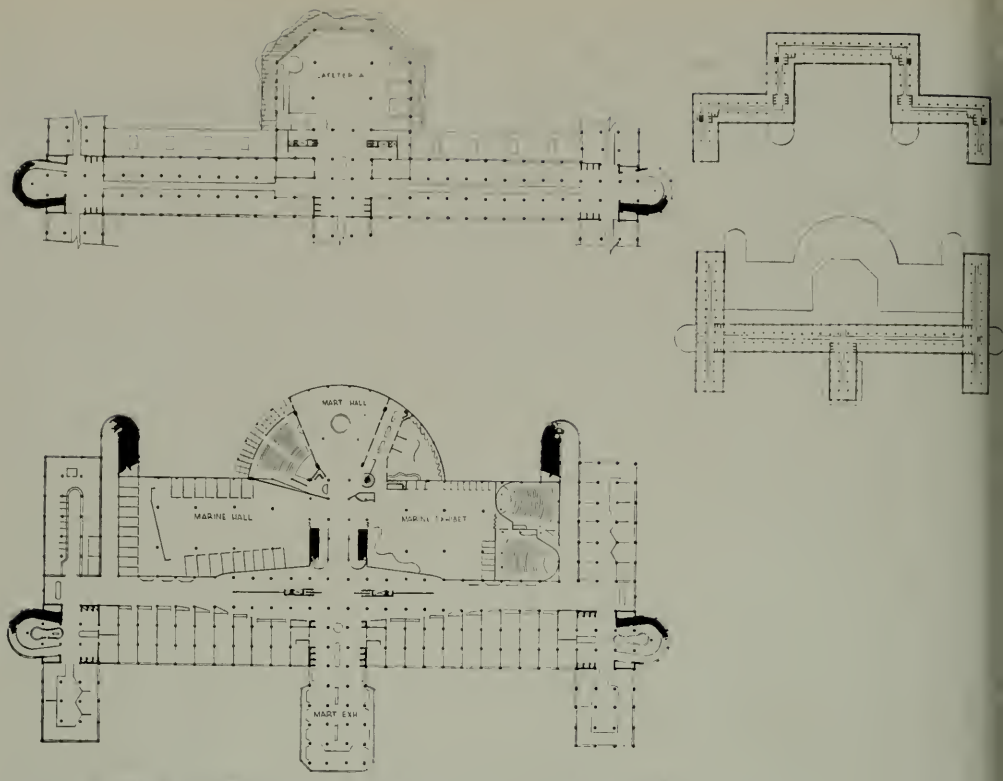


DESIGN 1: STUDIES FOR SAN FRANCISCO WORLD TRADE CENTER
Henry Lagorio

Centered around Washington and Front Streets are the Marine Exchange, the Mart Building and three office buildings—the Europa, Orient and Pan-American. Traffic leads to these buildings. Parking and servicing at main level under buildings ar second floor. Business houses are conveniently located in relotion to other building functions. Ramps and elevators facilitate in-and-out traffic.



DIAGRAMMATIC VIEWS OF THE FOUR BUILDINGS PROPOSED FOR S. F. WORLD TRADE CENTER
Below: Section through building and grounds. Plot shows areas for Trade Center and Warehousing Zones.



PLANS FOR MART AND MARINE HALL, SAN FRANCISCO WORLD TRADE CENTER
Exhibits, lecture halls, brokerage offices, are indicated on the plans which likewise show cafeterias, general office and typical floor space.

will provide display space to stimulate manufacturers of machinery to participate in the exhibition at the World Trade Congress planned for 1946-7."

According to the Shipping Register on the Marine Exchange, December 4, 1943, "The warehousing and foreign trade zones alone should develop new and substantial movements of cargoes from abroad, much of which may be sent on consignment for sale here or re-export, and much for warehousing and processing."

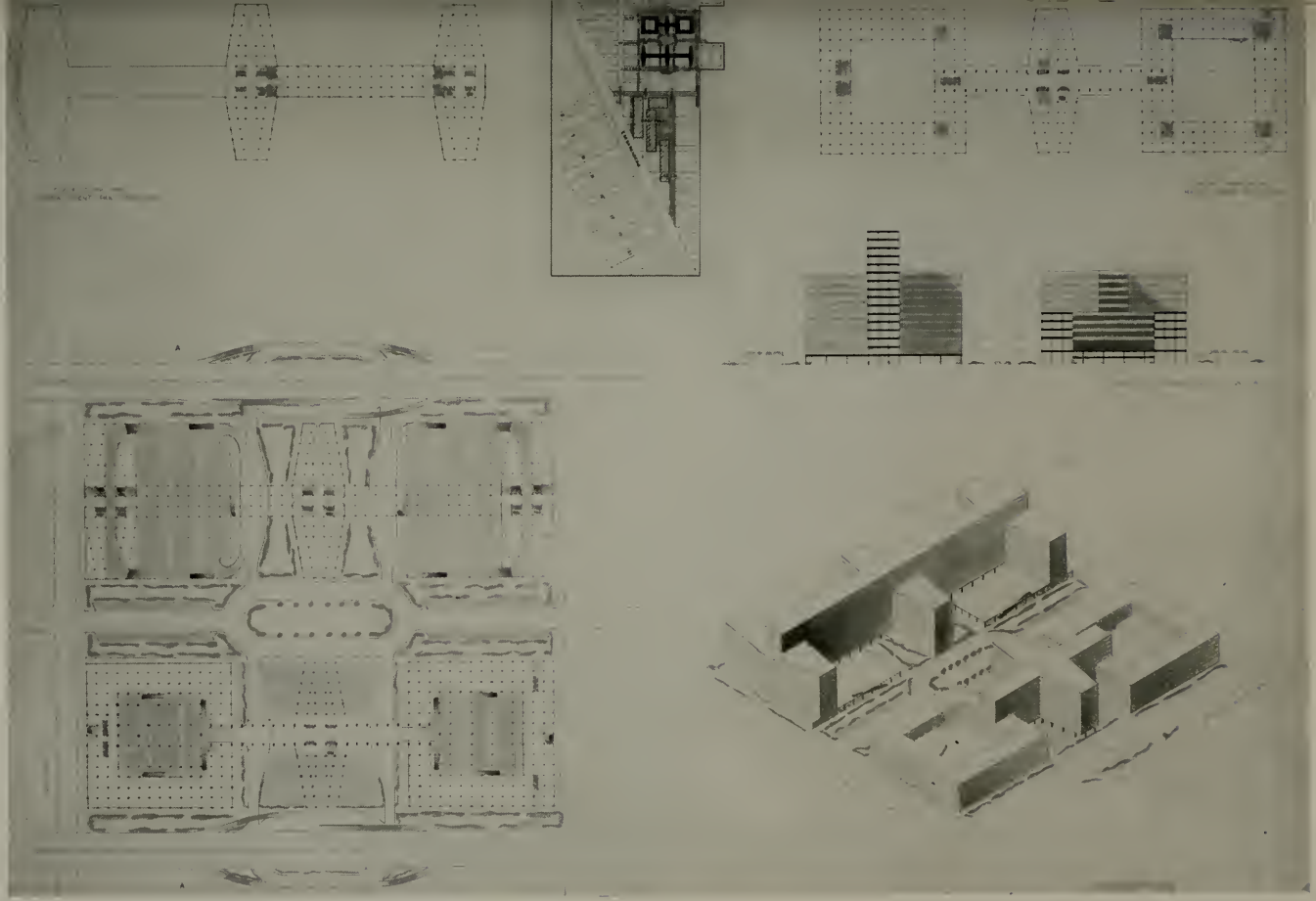
Visitors from abroad and here will be shown into the Trade Mart and Marine Exchange Building of the Center, as well as into the Europa, the Orient and the Pan-American buildings, respectively.

It is beyond the scope of this statement to discuss the various analyses required to determine the bases for the working out of the project. On the assumption that determination had been made by the planning and other participating agencies, the following had been considered during the classroom study.

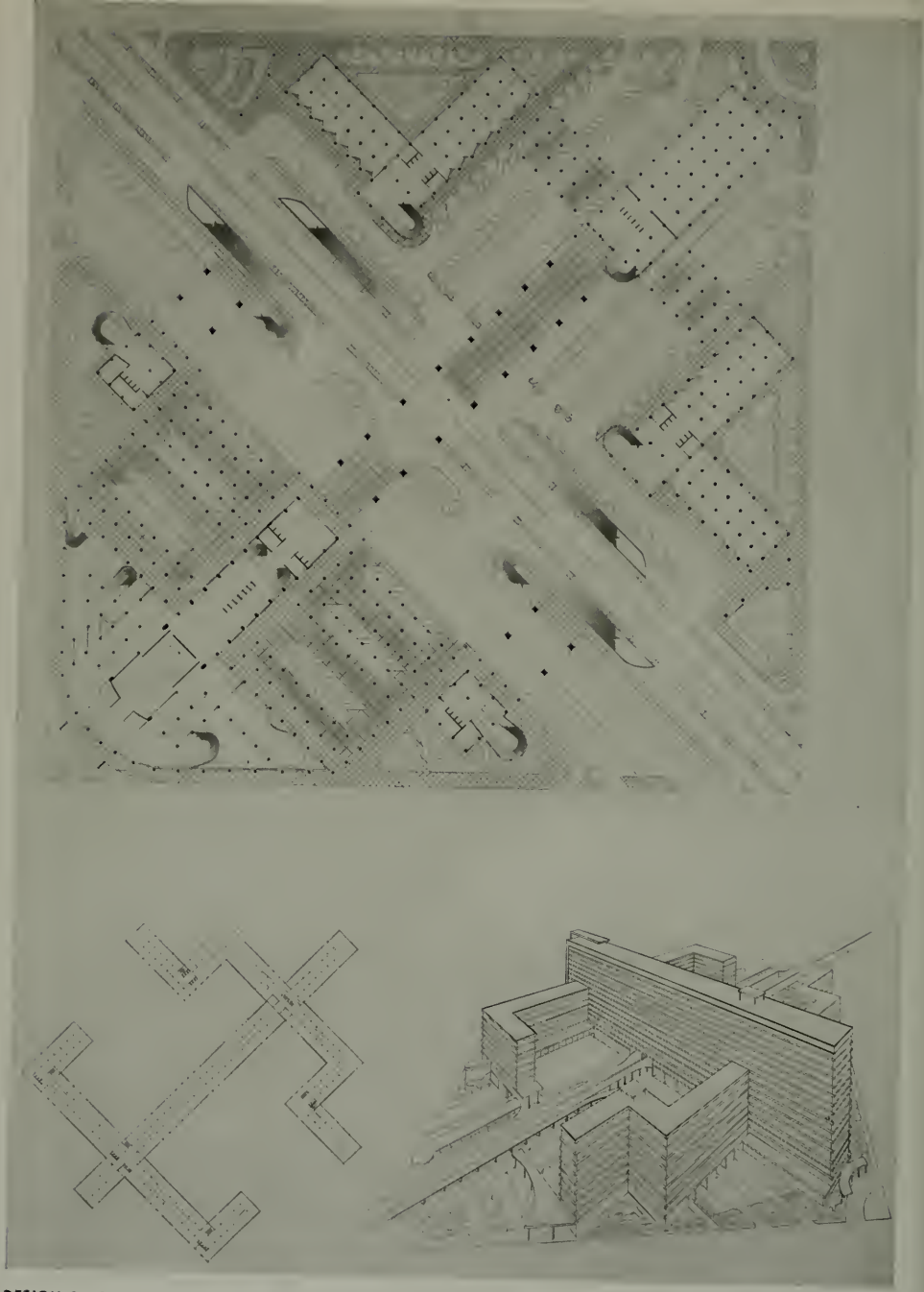
To the class student as a future planning technician and a member of a community, gathered facts, their analysis and their determining form, will be an eye-opener in the complex relations of planning. Emergency planning for the defense of congested regional areas against the war impact had demonstrated the need to know one's own community and stress better organization. It was this experience that the instructor carried into the class.

The area selected for the World Trade Center is bounded roughly by Clay, Battery and Jackson streets, which is the general site of the Produce Market as shown on block map. It is

(Turn to Page 28)

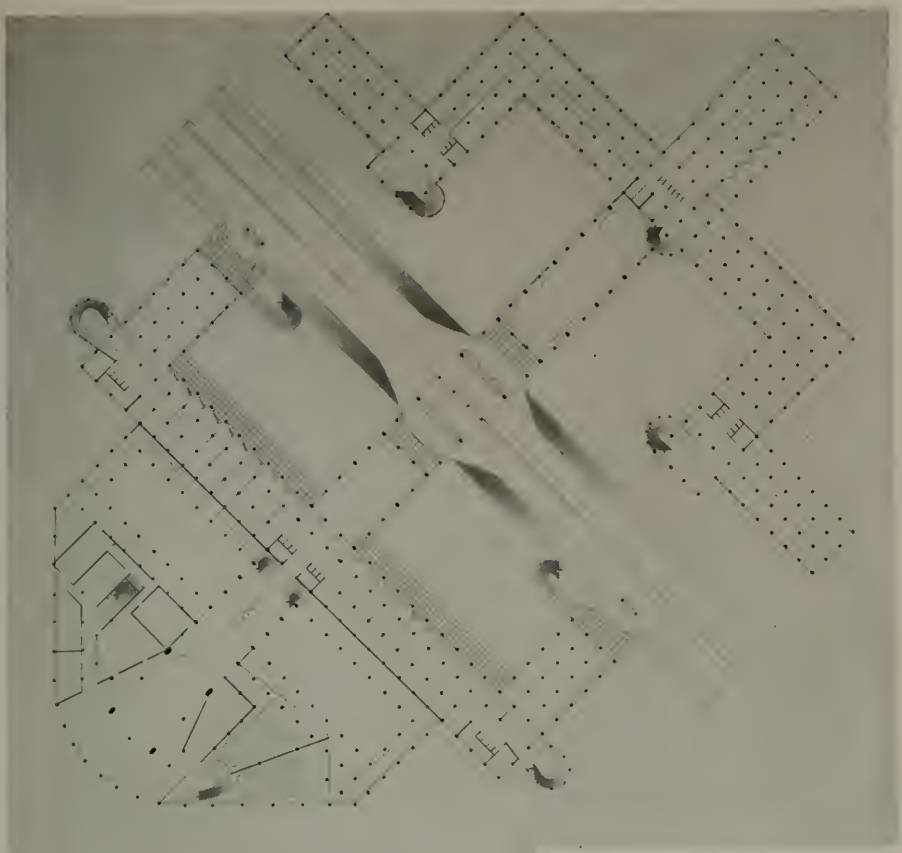


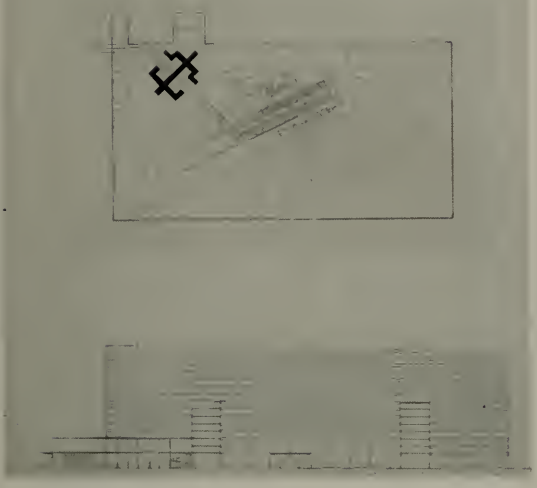
DESIGN 2: STUDIES FOR SAN FRANCISCO WORLD TRADE CENTER
W. M. Reemelin (civil engineering student)
Interesting arrangement of block units for the four buildings. Note ramps for branch traffic. Parking on ground level and second floor. Heavy trucking has independent access to building. Other plans show typical office space.



DESIGN 3: STUDIES FOR SAN FRANCISCO WORLD TRADE CENTER
Miss Jane Moorehead

Diagonal treatment of group plan over surface and elevated traffic branch leading from the Embarcadera towards Columbus Avenue. Ample parking and miscellaneous low storied buildings, service stations, etc., are provided.

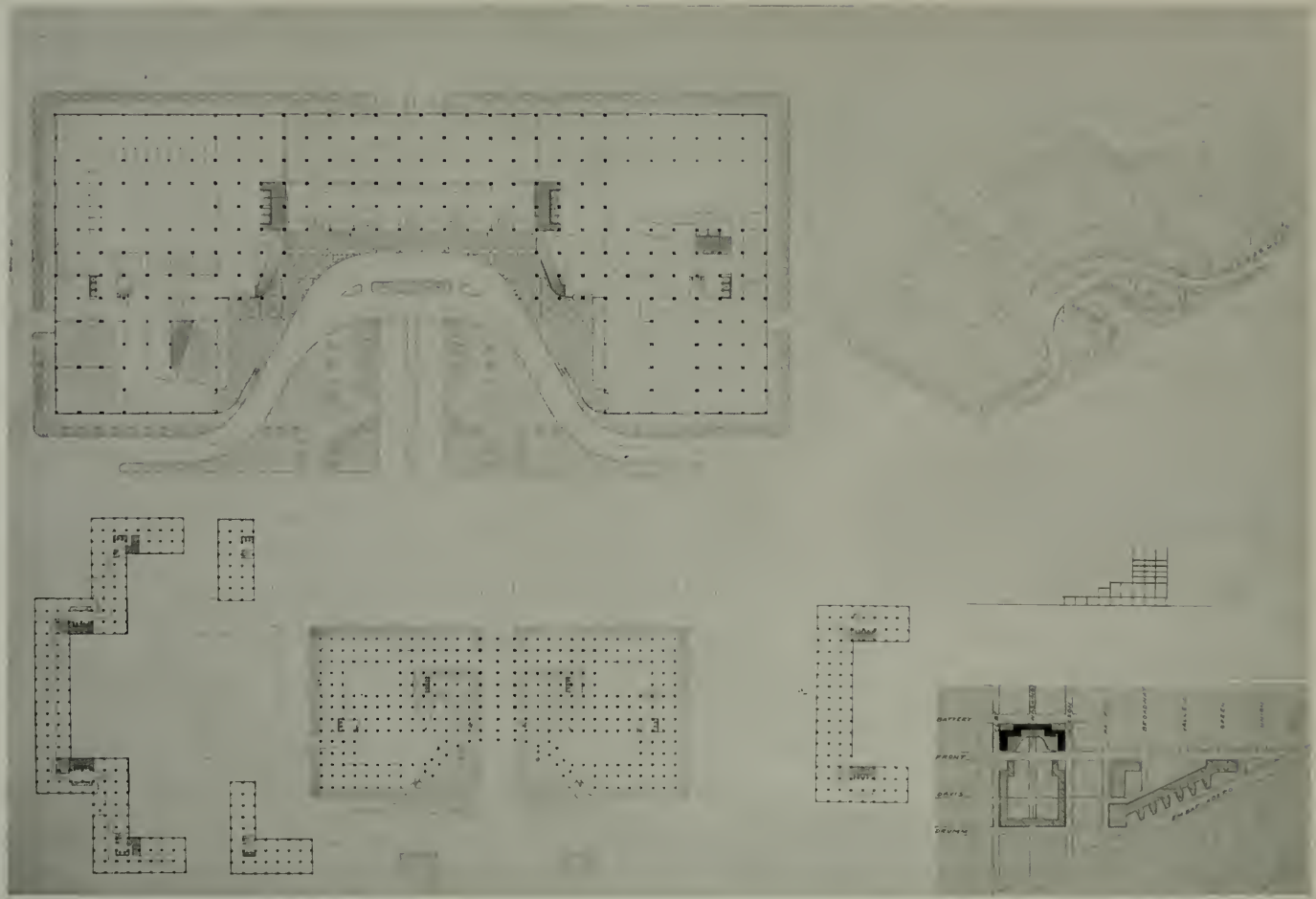




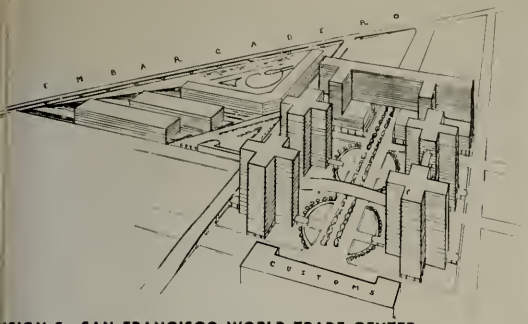
ABOVE: PLAN OF DESIGN 3, SHOWING CAFETERIA, MART AND MARINE EXCHANGE, ASSEMBLY ROOMS, OFFICE AND SHOW SPACE.

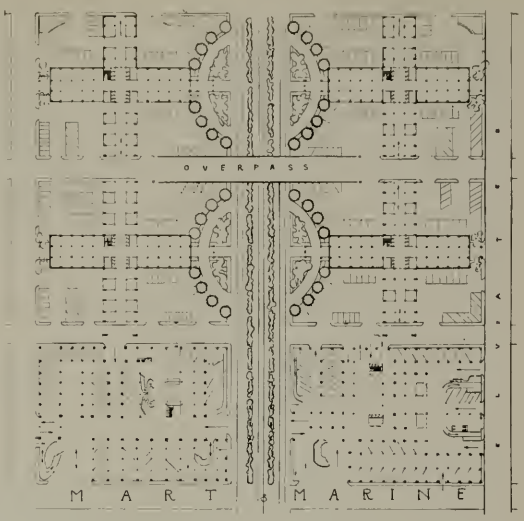
ELEVATED TRAFFIC PASSES THROUGH THE BUILDING SLAB.

LEFT: GENERAL PLOT AND SECTION.



DESIGN 4: STUDIES FOR SAN FRANCISCO WORLD TRADE CENTER
Miss Edith Fagerlund
A super block containing Marine Exchange and Trade Mart. Nate wide street passing beneath the building and cantinued through Washington Street. Parking at ground level as well as ramps and elevators serving the super block. Elevated traffic coming to main level to handle in-and-out passenger loads with ample space for waiting crowds.





ESIGN 5: SAN FRANCISCO WORLD TRADE CENTER
rdi Sahingil
excellent composition of office building blocks, king the new Appraisers Building as a starting point. orehouse district to the left.

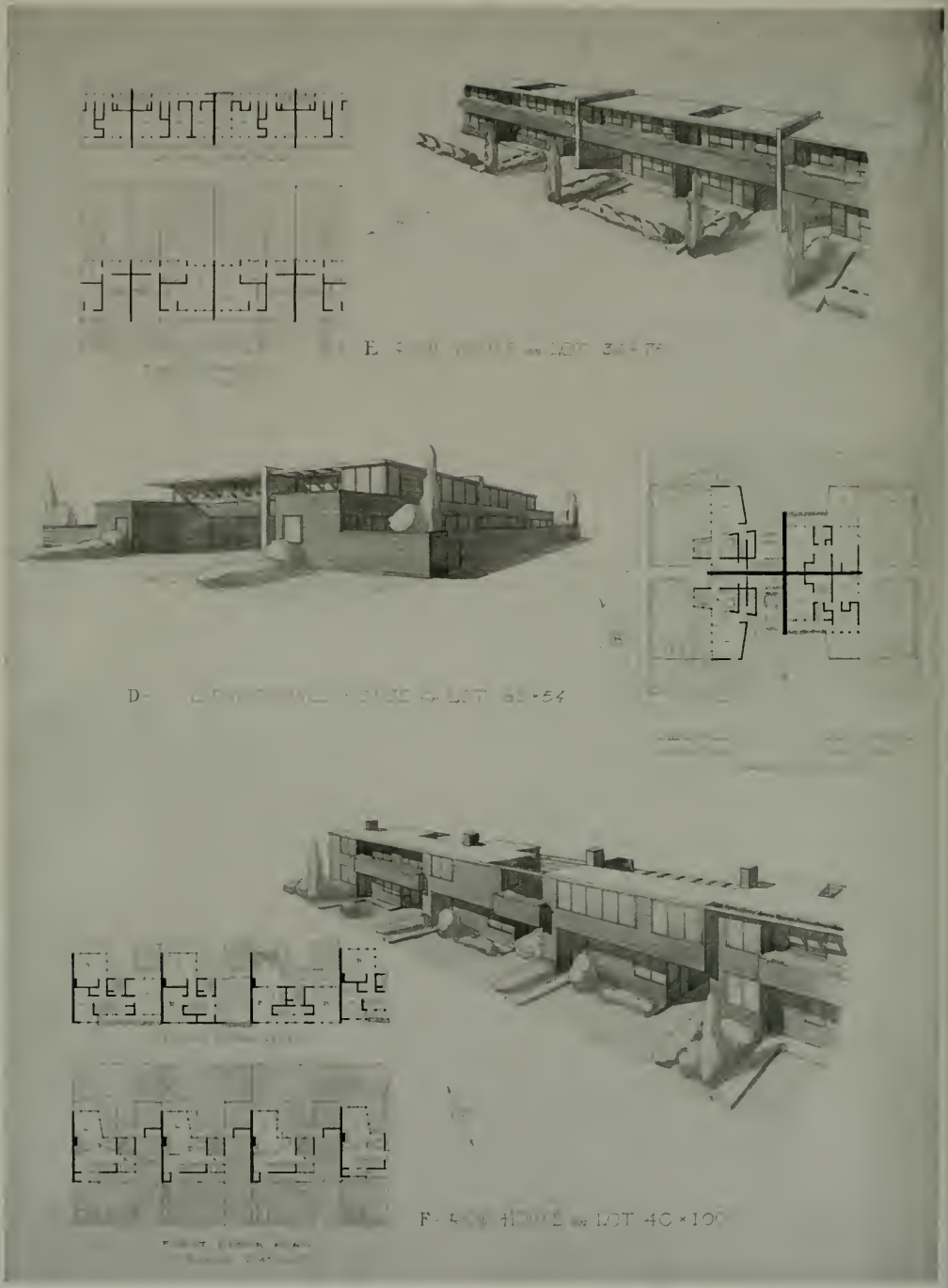
a district leading a peculiarly independent life. For forty years it has functioned where it is, on narrow streets in cramped quarters. With anticipated increase in population, San Francisco, which had a severe traffic problem before the war, may find it necessary to move this produce market in order to relieve the traffic burden. According to a survey by W. T. Calhoun, H. E. Erdman and G. L. Mehrin, for the United States Department of Agriculture and the University of California, the estimated need for a modern produce market will be fifteen acres. Speed is necessary to relocate the market on other available land, preferably in the southern part of the city. The waste encountered in delays in loading and buying, due to inadequate space and traffic difficulties, was estimated at 300 business days per year!

A number of commercial buildings outside this area are less obsolescent and are scattered north of Pacific Avenue, between the proposed warehousing zone in the class project. This zone was relegated to the space between Pacific Avenue, Front Street, and the Embarcadero and is now completed as the next class study.

It is difficult to estimate the cost of construc-

(Concluded on Page 37)

CHARACTERISTIC VIEWS OF OBSOLESCENT PRODUCE MARKET DISTRICT, SAN FRANCISCO. FIRST PICTURE, A QUIET DAY ON THE EMBARCADERO.



PRELIMINARY SKETCHES FOR ROW AND QUADRUPLE HOUSES
Ookland Redevelopment Study by Albert Aronson

URBAN REDEVELOPMENT STUDY
CENTRAL OAKLAND

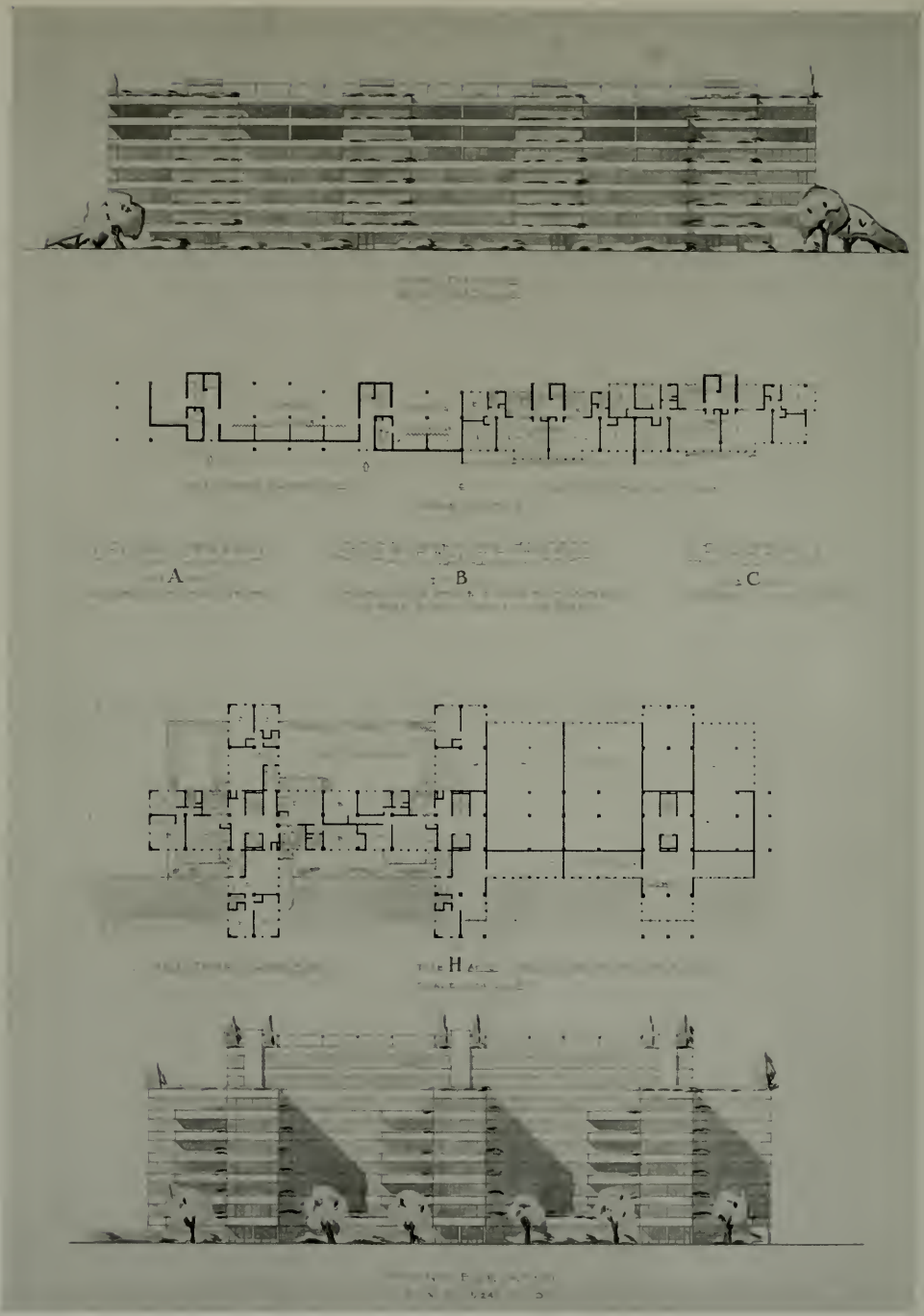
At the School of Architecture, University of California, a planning study of the redevelopment possibilities of a run-down area in central Oakland is nearly completed. The study which is being made by Albert Aronson, under the direction of Howard Moise, professor of architecture in charge of planning, is the first redevelopment problem to be undertaken in the Bay Region.

While the study as a whole is not yet ready for publication Mr. Moise has agreed to the publication of preliminary drawings for some of the building types which will be suggested for the redeveloped area. This area comprises twenty-eight blocks just west of the Civic Auditorium and south of 12th Street. Because of its proximity to the main business center of Oakland it has been deemed appropriate to suggest the use of moderately high elevator apartments around the perimeter of the project. Tentative designs for two such buildings are shown.

The interior of the project will provide park and playground space, a primary school, church and community building sites, and a considerable number of two-story single family dwellings which were decided upon in order to provide some houses with yards, for families with small children, and an outlook over trees and gardens for the apartments in the higher buildings. The E and F units are row houses of a more or less usual type but Type D is different. It is an attempt to solve the problem of achieving maximum visual and sound privacy on a comparatively small lot by placing two **adjacent** walls of the house on lot lines.

Mr. Moise has long advocated changes in our zoning ordinances which would permit the building of one wall of a house on the lot line in cases where the owners of two adjacent lots mutually agreed to the plan. Type D carries this idea one step farther by placing four houses in the adjacent corners of four lots so that each house has two adjacent party walls. A further departure from common practice is the proposal to make the lots unusually wide and exceptionally shallow. In the design shown the lot has a frontage of 60 feet and a depth of 54 feet, creating a total area of 3240 sq. ft. This results in reducing the unfunctional front yard—that 19th century sacrifice on the altar of conspicuous waste—to a narrow planting strip, and increases the side yard sufficiently to provide—with the aid of a fence—a completely private garden or patio onto which almost all the rooms of the house open or look out.

Although in the proposed development plan both street and sidewalk widths are reduced to a minimum there would still be 70 feet between the front windows of one house and those of the house across the street, while the minimum distance between side windows would be 44 feet instead of the eight to ten feet so common in present-day East Bay developments. The party walls would, of course, be so constructed as to be both soundproof and fireproof. With this protection against the spread of fire, and a roof of fire-resistant material, the remainder of the house could quite safely be of wood construction.



PRELIMINARY SKETCHES FOR ELEVATOR APARTMENTS
Oakland Redevelopment Study by Albert Aronson

THE NATION'S CITY*

by CHARLES D. MAGINNIS, A.I.A.

There was a time when, dressed in a little brief authority, I used to be a frequent visitor to the Capital. I have been living since in a provincial seclusion on the fringe of things so as to give me tonight the sensation of having been withdrawn out of a cloister into this sophisticated occasion. I never lost for a moment the consciousness of Washington. One cannot any more. I dare not ask how vividly you are aware of Boston, which long ago was so unique a place in the national imagination. Yet it, too, is unforgettable. History was so generous to Boston. The early patriots made it a hallowed place. It was the abode of giants in the great age of American letters when men spoke of it as the Modern Athens. It is a glory long departed but the memory of it is still a wistfulness of the modern Boston, whose countenance bears the unmistakable imprint of its proud history. It is a city of individuality. No visitor is unmoved by the sentiment of the ancient souvenirs that survive in the midst of its everyday realism. Boston should guard well these proud possessions in the days of its inconsequence.

It is curious that the individuality of cities is so negligible a concern when we observe the feeling with which the average man asserts his citizenship. He regards his locality as an inevitable sort of place, whose validity he would not dream of doubting. He is not merely complacent about it but he has built up a patriotism for it which is a particularly sensitive passion. It has nothing whatever to do with the merit of things. It is a pride quite beyond objective provocations for it can be roused to astonishing enthusiasm by the most dreary and despairing of neighborhoods.

There is a singular perversity of this urban patriotism that it doesn't perceive local disorders and, when it does, it finds an unaccountable relish in them. Once as I was leaving the mellow respectability of Exeter Cathedral in England, my cabby shocked me with an invitation to visit the slums. "What," said I, "slums in Exeter?" "Why Lord bless 'ee, Sir, we has slums in Exeter that Lunnon's ain't a patch on." But I preferred to carry away only the fragrant memories. It was Lord Bryce who said that the city was the weak, and might even prove the fatal, spot in our democratic system. But this is a political problem which will ultimately come to settlement. I have confidence that it is not beyond the American ingenuity.

In only a single instance, but that a striking one, has the architect been identified with the shaping of American cities, so crystalized is the principle that his concern is limited to the individual unit of the street. That his talents can profitably be drawn to the study of the city as an organism, however, is an idea that is slowly coming to acceptance, and American architecture has been awake to the high opportunity. The artistic and scientific skills have become effectively organized in the relatively new profession of the City Planners whose particular business it now becomes to mould the community to its own genius, to substitute principles of design for economic anarchy. Beauty, so long admitted only as an oasis in the heart of non-description, will eventually be brought to the American city as an organic and disciplined thing. The progress will be slow and difficult. Commerce is mighty and has many ways of ugliness. It must be compelled by force of sentiment or law to temper its enterprise to the public sensibility. Until this hope comes to impressive reality, there will be question whether the measure of our civilization is to be found in the high estate of American art or in the debasement of our civic and rural landscapes. Our culture is not to be vindicated by the excellence of skyscrapers. If the challenge of this ugliness is not recognized as the first artistic problem of America, Radio City and the Empire State have done us too much honor. We have been carving cherrystones while the country is given over to the devastating barbarities of the billboard. So much needs saying even as we acknowledge that many of our cities are articulated by art of the highest order and a few

*An address by the past president, American Institute of Architects, at a meeting of the Joint Committee on the National Capital, February 18, 1944.

have entered on the path of official initiative. Here we should fairly take account of the thrilling municipal enterprise of New York which is changing the face of things under bold and intelligent leadership.

But it is the vision of the National Capital that leaps to the mind as our incomparable community. It is altogether fitting it should be so. No mere secular city, circumscribed within its own borders and preoccupied by its own life, Washington is a political abstraction, the nation's city of the spirit. In this large meaning every American from Maine to California lays claim to its citizenship. From the beginning it was meant to be a symbol of this common principle. From the beginning it was meant that it should be rendered in the terms of dignity that would do credit to the American idea. We are met tonight in the interest of that high intention. Our country is entering upon a larger life. As it moves out of its retirement into the companionship of the nations it must bear itself proudly. However genial may be the international amenities, we know that Europe is yet to be convinced of the respectability of our culture. It has never withheld its recognition nor its tributes to our great men, but it has seen them as lonely obelisks, as eccentric phenomena that have not sensibly qualified its traditional estimate of us. We are actually the most sentimental of nations but yet the persuasion is not easily disturbed that the American genius is so engrossed in a civilization of materialism as to be incapable of a sustained effort in the arts towards a really national utterance. Yet the City of Washington is precisely such a demonstration. It is that by the merit of its genesis. For it is a flowering that stems from the early poverty of the republic. That the intellectual concept came from the mind of the first President is one of the symbolic felicities of history. No less so was the circumstance that the imagination was ready that could shape it to noble correspondence. Out of this union of thought came the great L'Enfant plan whose fortunes through the years have been so anxious an interest till it came to final vindication. From its inception it has had its critics, for in the waywardness of human nature we are incapable of reaching universal agreement about anything. There was controversy over the geography of the Capital City. There followed protesting opinion and even ridicule over the ambitiousness of the plan, as its implications were seen to be at odds with the modesty of the early need. It suffered definite violations as in the arbitrary intrusion of the Treasury whose classic countenance offered a doubtful atonement. I recall myself the time when, as a visitor to Washington, I could step on the mall from the Pennsylvania train whose tracks lay directly across it. The plan had been forgotten and the Washington scene became an unsightly confusion of monumental dignities and a squalor that roused the national indignation. We observe the first phase of its recapture when in 1871 President Grant was moved to establish the Territory with Alexander Shepherd as its first Governor. Shepherd was a man of action possessed of an energy that cut into the languid complacency of the time and earned from the captious the nickname of the "Boss." Later history, in the light of events, has made reparation to the memory of Boss Shepherd who, in the face of popular clamor made a remarkable contribution to civic order and efficiency. His reforms could not be entirely palatable to the regulated emotions of taxpayers. Few reforms in the physical order ever are. Yet as we look backward in the light of our contemporary arithmetic, we cannot feel that Boss Shepherd laid any tragic load upon his generation.

The L'Enfant plan had not yet, however, come to official protection, or indeed to official consciousness. It was not until the nineties that the plan was actually lifted out of the obscurity in which it had lain for a hundred years. It is a happy memory of my profession that The American Institute of Architects gave it instantly the authority of its championship. Its proposal for a special commission of experts to deal with "the location and grounding of public buildings and monuments and the development and improvement of the entire park system" was sponsored by Senator McMillan, Chairman of the Senate Committee on the District of Columbia, and what has been known as the McMillan Commission was presently authorized by Congress. The distinguished com-

petence of the Commission, composed as it was of Daniel H. Burnham and Charles Follen McKim representing architecture; Frederick Law Olmsted, Jr., landscape architecture, and Augustus St. Gaudens, the art of sculpture, amply implied the weight of its conclusions. An independent and exhaustive study that took fresh account of all the elements of the civic problem as well as of the ways which had brought distinction to the great Capitals of history, finally issued in a complete endorsement of the plan of L'Enfant. In 1910 Congressional approval was secured by Elihu Root, then Senator for New York, for a bill establishing the National Commission of Fine Arts, whose duties, at first limited to the review of proposed statues, fountains and monuments, were later enlarged to include parks and public buildings. This was an act of enlightened statesmanship which resulted in enormous benefaction as it brought to being what has proved to be the most potent influence upon the art of Washington. The understanding and the fortitude with which it has resisted the assaults of ugliness and upheld responsible standards of design have earned for it a national acknowledgement.

The civic intelligence has no truer index than concern for its parks, and this concern was manifested in the report of the McMillan Commission. However, the recommendations of that commission failed to bear fruit. In the 25 years following the filing of the Commission report, only six of fifty-three recommended sites were acquired. To correct this situation, a Park Commission was launched in 1924. This served to implement the park and public building programs but had no authority to deal with other elements of well-rounded city planning. Accordingly, two organization committees were set up to work for planning legislation—the one, a Washington "Committee of One-Hundred" with the backing of the American Civic Association; the other, a nation-wide Committee of the American Institute of Architects. The architects' committee, established in 1924, was instructed to work for a competent and properly qualified body to prepare "a comprehensive and coordinated plan for the future harmonious development of the entire District of Columbia and its environs"—which phrasing was adapted in the final legislation reconstituting the Park Commission as the "National Capital Park and Planning Commission."

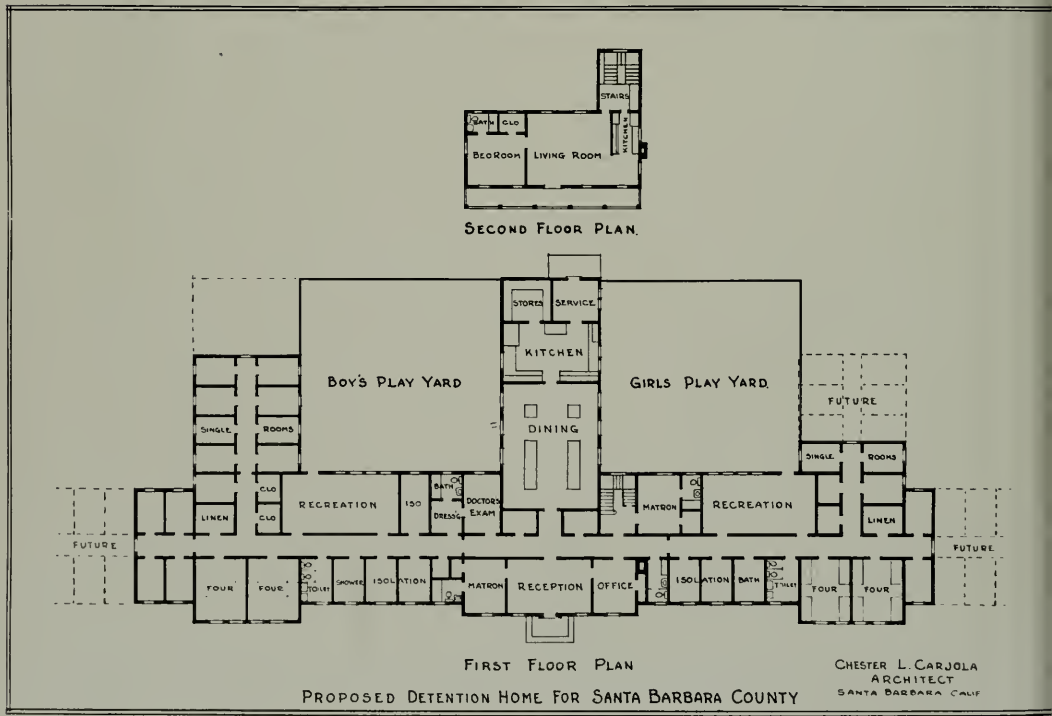
In line with its general authorization, the development of a regional scheme that would coordinate the planning of the Capital and its environs became its first and most pressing purpose. On the publication of its first draft at a convention of the American Society of Landscape Architects, sympathetic cooperation was pledged by the Governors of Maryland and Virginia—a cooperation implemented by the four cooperating Planning Commissions established in the adjunct jurisdictions of these states.

So brief a review cannot fittingly acknowledge all the instrumentalities that have labored for the artistic good of the Capital, but it is a devotion that will not be forgotten. It has been a process that has made for competencies which, in a continuing exercise, would be adequate to the expanding city and wake no apprehensions. But an element of another consequence has entered in. A changing world has driven art into the mood of revolution, and Washington must confront the challenge of a philosophy which, in the name of modernism, protests its architectural validity. It is a movement to be reckoned with, a crusade that will find so classic a citadel a particular provocation. It would be an intellectual disloyalty were we indifferent to the claims of an architecture that professes to interpret with superior logic the disposition of the time. Those of us who detect limits to the pertinence of the new design, however, are reasonably concerned about its implications on the Washington tradition. We know its precocities. They raise doubts about the effect of its disturbing presence in so orderly a household. Reasonably it is not here a problem of principle but of decorum. As such we may leave it to the wisdom that has watched thus far over the formal good-order of the Federal City. On this and all other accounts we must feel it a happy circumstance that those agencies promise to abide with it which have carried the City through so many vicissitudes to an integrity that has won the enthusiastic sanction of the American people.

Chester L. Carjolo, Archi

PROPOSED DETENTION HOME FOR SANTA BARBARA COUNTY, SANTA BARBARA

SANTA BARBARA COUNTY PLANNING AND PUBLIC WORKS
W. C. Penfield, Director



PERSPECTIVE, PROPOSED CIVIC AUDITORIUM FOR CITY OF SOUTH GATE, CALIFORNIA
William Allen and W. George Lutzi, Architects

POST-WAR BUILDING PROGRAM FOR CITY OF SOUTH GATE

An ambitious post-war building program by the City of South Gate in Southern California, is seen in some well studied and equally well executed preliminary drawings by William Allen and W. G. Lutzi, architects, of Los Angeles. Expenditure of half a million dollars is proposed for a Hall of Justice, Municipal Auditorium, Swimming Pool and Playground Area.

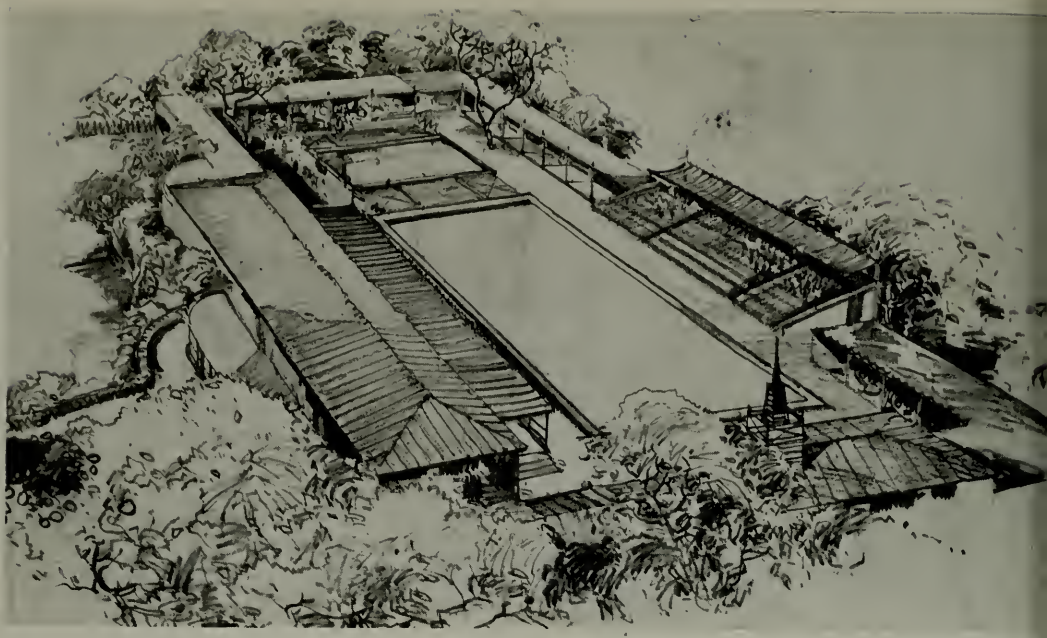
South Gate is setting an example that other municipalities may well follow. This is one certain way of meeting the post-war unemployment situation, and at the same time instilling greater civic pride in growing communities.

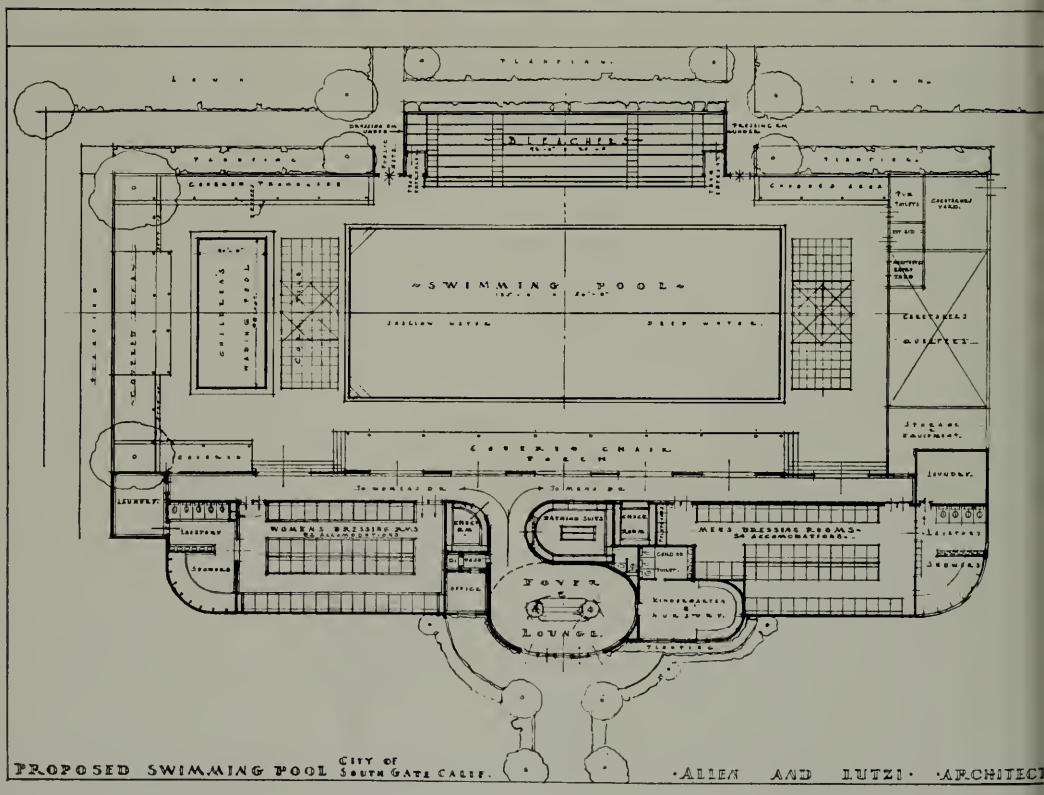
The City of South Gate already has a fine City Hall and Public Library Building, both designed by Messrs. Allen and Lutzi. The proposed new structures will complete a splendid Civic Center group.

Rectangular in shape, the Auditorium will seat 1500 persons. There will be a single balcony and generous size stage. Entrance doors to the Auditorium are on the street frontage and off a terrace on the opposite side. Facilities will include a kitchen and meeting rooms for committees and small groups. The building will be steam heated and air conditioned. Hardwood floors and trim, marble and tile wainscoting, acoustical plaster and shingle tile roof are included in the architects' specifications.

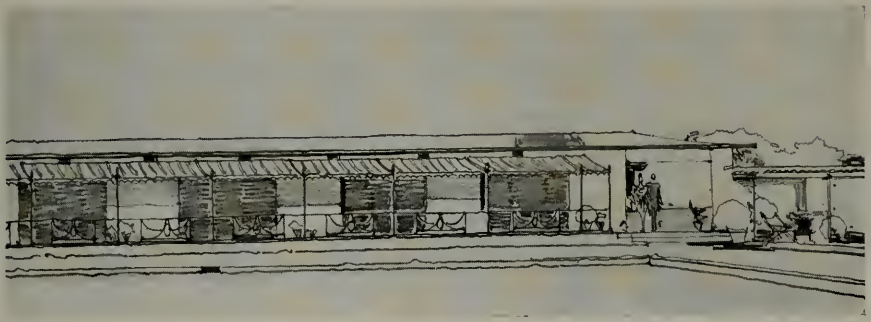
A spacious swimming pool is included in the post-war plans, as indicated in the accompanying drawings. The ground plan shows a rectangular pool enclosed by low structures on three sides, housing lockers and other facilities, and an open grand stand on the other side. A

Illustrations Santa Barbara Detention Home and City of South Gate Civic Center Buildings, courtesy Southwest Builder and Contractor.




SWIMMING POOL
BLEACHERS
LOUNGE
PROPOSED SWIMMING POOL CITY OF SOUTH GATE CALIF.
ALLEN AND LUTZI ARCHITECT

SKETCH OF MAIN ENTRANCE TO PROPOSED SWIMMING POOL, CITY OF SOUTH GATE
William Allen and W. George Lutzi, Architects



SKETCH SHOWING COVERED CHAIR PORCH OVERLOOKING SWIMMING POOL

wading pool for children is provided at one end of the swimming pool. Facing the latter, adjacent to the main entrance, is a covered chair porch. Off the main entrance is an oval foyer and lounge.

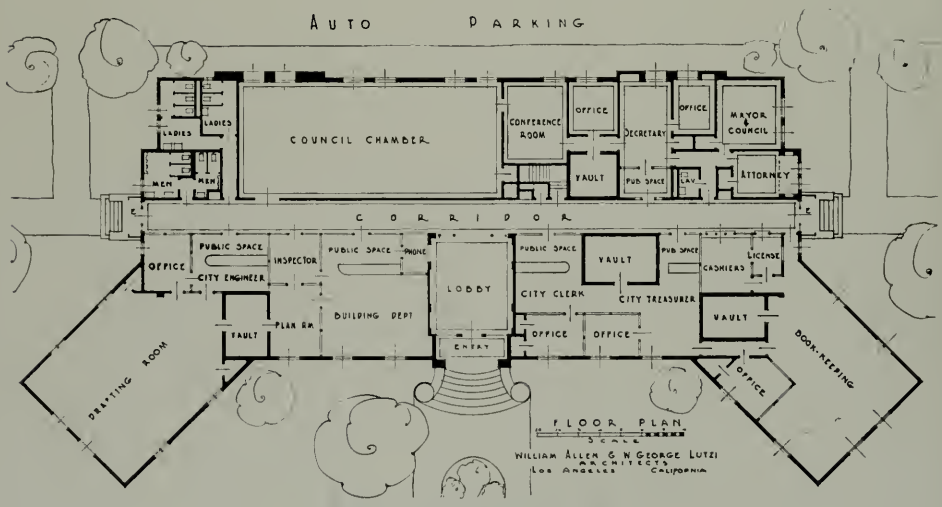
Roofs of the structures around the swimming pool will be lined with ceramic tiles. All the latest equipment for operating the pool will be installed.

The Justice Building, adjacent to the City Hall will be a one-story reinforced concrete structure around a central square court. It will contain a jail, two court rooms and a receiving hospital. The roof will be shingle tile and the materials used will be the same as those utilized in the other buildings.

An excellent view of the completed South Gate City Hall, with plan, is shown on the following page. It is a one story reinforced concrete structure, approximately 160 feet wide by 80 feet deep. The design is a modified Monterey Colonial. All ornamental stone and moulds were cast integrally by means of waste moulds.

The floor plan is explanatory of the contents. Basement area houses all the equipment rooms, such as air conditioning, transformer vaults, heating, storage, etc. Function, economy of construction and design, stressed by the architects in all their work, are emphasized in the South Gate City Hall. Cost of the building, including landscaping which was supervised by the architects, was $160,000.

CITY HALL FOR CITY OF SOUTH GATE, CALIFORNIA
William Allen and W. George Lutzi, Architects



PLAN OF SOUTH GATE CITY HALL

STUDIES FOR WORLD TRADE CENTER SAN FRANCISCO

(Continued from Page 25)

tion, improvements and rentals of the average design submitted. At present, the rent per square foot of ground floor store space in the area of the Produce Market, averages approximately $1.00 per year and brings in about $211,000 for the year's total. Assessed valuations of the buildings and the land on which they stand totaled $650,000 (1941), with a total average of $3.30 on basis of square foot of ground area.

The area and cubage of the World Trade Center project are as follows:

Total parking of all types, 220,000 square feet. Ramp and motor isles inside of the buildings were found to be in excess. Rental area, 2,000,000 square feet, and approximate cubage, 21,500,000 feet.

The reproduced diagram shows combined circulation in primary streets. The light load in the district considered is mostly due to the lack of information. Efficient disposition of office area population to and from work and segregation from down town movement and other extraneous traffic were items considered. Routing of specialized traffic by means of auxiliary feeders, while desirable here, would have been a practice contrary to the standards of housing development planning. While keeping in mind street traffic facilities, there was a tendency on the part of the student to use too much elevated construction. Pedestrian and vehicular traffic were to be separated and accessibility to parking areas made easy, both in the buildings or on surface. On the basis of locally prevailing conditions, one level above the ground was considered as the optimum for efficient parking operation. Little, if any, underground parking was considered feasible. Shops and business establishments were located in proximity to all parking.

Other studies conducted are for an improved scheme of the business district in the San Francisco Chinatown, together with a mixed housing neighborhood to relieve the chronic congestion in that district.—Michael Goodman.

"POST-WAR PLANNING NOW"

Designed to help untangle the many conflicting statements concerning our post-war economy, 286 of the most vital peacetime plans and projects now underway in American industry have just been summarized in "Post-War Planning Now," the latest transition study published by the New York Journal of Commerce.

The actual peacetime outlook in 56 major industries; descriptive details of new products, services and processes; and the formula for a gradual lifting of price, priority and ration controls are thus compiled for the first time under one cover.

All the material for this second edition of "Post-War Planning Now" was obtained from data furnished by key industrialists, government and trade association officials. Copies may be had at 25 cents each from the New York Journal of Commerce, 63 Park Row, New York 15, N. Y.

A good deal of spadework still remains to be done before we will arrive anywhere near the "helicopters in every backyard" stage of our post-war world, the publication reports. Machinery now being set up is expected to pave the way for an orderly disposal of surplus plants and materials and for the smooth administration of contract terminations and transition controls.

Automobile makers are set to resume production within four months after the cessation of war goods manufacture. A total of 18,400,000 new cars and trucks will be needed to get the nation back to prewar standards, with 60,000,000 automobiles expected to be on the road within 10 or 20 years. No less than 26 peacetime uses on farms, factories and municipal projects are already in store for the Army's popular "jeep" vehicle.

Aviation executives are agreed on a family plane costing approximately $2,000, but remain sharply divided on the subject of international airlines, air transport and the potential passenger volume. One government expert forecasts 9,000 transport planes carrying 20,000,000 passengers each year, while an airline official cautions against "romantic field days" and foresees a need of only 1,000 planes to handle an estimated 10,000,000 passengers annually.

Plastics, nylon, synthetic rubber, electronics, dehydrated foods and other war-born necessities appear definitely slated to play a major role in the shape of the peacetime world. New post-war outlets for our expanded rubber, aluminum and steel production seem assured and our unexplored petroleum reserves are reported fully ample for several generations to come. New uses for natural fibers are expected to combat the inroads of chemical, mineral, soy bean and other man-made textile materials and, through greater use of blending, bring about many attractive new fabrics.

Comfort, coziness and convenience without radical departure will be stressed in post-war housing, rather

than the fantastic dream houses at impossibly low prices the public has been led to expect. Twenty million new homes can be built during the first 10 years after the war, with employment for 10,000,000 men and women in construction and related industries. Low cost, pre-fabricated homes are to play a major role in this development. New lightweight heating units and further electric appliance innovations are also ready for the green light on civilian production, the publication states.

FLUSH VALVES FOR POST-WAR SCHOOLS

To determine trends on selection of flush valve combinations for "V" day and post-war schools, the Imperial Brass Manufacturing Company, Chicago, recently made a survey among 309 architects having wide experience in school work.

Votes were cast on the question: "Which combinations do you believe offer the most advantages for use in post-war schools?" An analysis of the returns showed that concealed flush valves for closet bowls were far and away the favorite where appropriations permit their use.

Foot-operated flush valves showed remarkable gains in preference and although individual combinations of this type did not rank at the top of the list, the total for foot-operated types was a close second to the concealed type total. Top-spud flush valves stood high on the list due to their economy and adaptability and seat-action flush valves finished in fourth place.

A preference of 3 to 2 was shown for silent-type flush valves.

RESUMES SERVICE TO ARCHITECTS

On May 1, the Pittsburgh Plate Glass Company resumed publication of its "Design of the Month" service. Published since 1936, this service was discontinued in June 1942. As previously, these designs will consist of a four-color process reproduction of a finished rendering, the plan and an interesting detail for a different type each month. Explanatory remarks and legend identifying new products used, or a new application of older products, also will appear.

INSTALL NEW OFFICERS

Big meeting of the year of the Engineers and Architects Association of Southern California, was held at the Cabrillo Hotel in Los Angeles, the evening of April 27. Magnet that attracted the overow crowd was the eight-ounce top sirloin steak, piece de resistance of the dinner. Installation of officers followed the repast, the new president being Robert C. Burt, with John Becker vice-president, and Hal Beck director.

OPENS SAN FRANCISCO OFFICE

Howard Moise has opened an office for the practice of architecture at 260 California Street, San Francisco.

COMMUNITY'S POST-WAR OPPORTUNTY

By Douglas Whitlock

American communities face the greatest opportunity of all time to create better living conditions and environments, if city and suburban officials in charge of planning and housing take advantage of the period remaining before the end of the war to plan for the progressive rehabilitation of blighted and slum areas and for the orderly development of new residential and business sections.

A huge volume of new building seems assured for the first five or ten years after the war. The principal problem remaining, so far as construction is concerned, is how to make sure that the building which is done best meets the real needs of the community from the standpoint of improved environments and sound urban development.

Private enterprise stands ready to do all of the building which this country needs and can afford, but a great volume of construction will not result in better communities unless adequate advance planning is done by public officials charged with that responsibility. That job should be done now, while civilian construction is virtually at a standstill, so that private enterprise can coordinate its post-war building program with carefully considered plans for the community as a whole.

Local officials in every locality should use the months preceding the end of the war to reach the following decisions:

1. Select the blighted districts which are to be redeveloped and recommend the disposition to be made of the individual properties.

2. Designate slum areas which are to be cleared and decide on the purposes for which the land is to be used.

3. Determine the number and location of older but sound dwellings which can be economically restored for the rehousing of families now residing in slums.

4. Decide on the amount of new low-rental housing, if any, which will be required to rehouse slum families.

5. Recommend approved locations for new residential, commercial, and industrial construction.

Planning of this type, rather than the building of dwellings and other facilities, is the true function of local planning and housing officials. Unless these plans are completed and approved by the time civilian construction is resumed, there is every reason to believe that community development in the future, as in the past, will proceed on a haphazard, poorly planned basis which will permit blighted and slum areas to continue in existence for another generation or longer.

Private enterprise cannot make these important community decisions. But once a sound plan for city development is adopted, private builders will cooperate wholeheartedly in its execution.

PRODUCERS' COUNCIL PAGE

Northern California Chapter

The National Organization of Manufacturers of Quality Building Materials and Equipment
Affiliated with the AMERICAN INSTITUTE OF ARCHITECTS

JAMES O. TURNER
"Genial Jim"

Jim Turner, chairman of our Fellowship Committee, heads up Chapter activities designed to stimulate interest in our meetings and activities beyond the actual scheduling of programs. The monthly War Bond drawing is one such idea and of course the Annual Christmas Jinks is the highlight of his committee's activities. If you have any other ideas, Jim says let's have them.

Jim has been identified with Western construction for the last ten years, is a native of Quitman, Georgia, and a graduate ('29) of Georgia Tech with an electrical engineering degree.

Jim's work experience runs from deck engineer with the United Fruit Co., through the National Park Service, Gar Wood Industries, Ferry Steel Products, to Westinghouse Electric and Manufacturing Co. in San Francisco in 1940. His job is general representative of the Agency and Specialties Department of Westinghouse, dealing with distributor relations and electrical apparatus for buildings.

He is a member of the American Institute of Electrical Engineers, San Francisco Chapter, the Electric Club of San Francisco, as well as the Producers' Council, Inc.

Jim is married, resides in Berkeley with the Mrs. and two-year-old Tommy.

Portland Chapter soon it will be. On recommendation of Chuck Kraft, Director and Liaison Officer for West Coast Chapters, San Francisco was commissioned to take the lead in cosponsoring a chapter in Portland, along with the Seattle boys. Chuck has named Ray Kingsland, special representative to organize the new Chapter along with a committee consisting of Ed Banta, who sparked Portland's interest; Horace L. Pickett, President of the Northern California Chapter, and Elwood Fryer, President of the Washington State Chapter.

Broad Gauge activities of this Chapter found further expression in our cooperation with the American Society of Safety Engineers in their meeting of April 26 on "The Role of Lighting in Accident Prevention." A very timely subject with industrial accidents mounting.

Time, Money and Quality were stressed as three basic considerations in laying out a construction program, by Owen Boyd, State Architect, in discussing the State of California post-war building program before the April BICB meeting. In proper relationship they spell good construction, special emphasis or one must of necessity require changes in the others.

Annual Meeting Postponed paralleling action by the A.I.A. the Producers' Council has called off its annual meeting scheduled for this month. At the request of the O. D. T. and in the best interests of furthering the war effort, it was thought best not to further burden the nation's transportation system at this time.

Our May 1 Luncheon at the Palace Hotel was a humdinger. With an ideal May day the attendance was most flattering. Features of the noon hour get-together were talks by Ray Brown and former President "Chuck" Kraft, the latter Liaison Officer for the Four Western Chapters. "Chuck" detailed the objectives of the Council, outlined some of its plans.

The 20-minute speaker was Ray Brown who modestly offered "something on tile for your post-war file." Ray told all about the new "Ceramic Veneer," a modernized architectural terra cotta which has been successfully used on the beautiful new U. S. Appraisers Stores Building in San Francisco. Norman Brown was announced as war bond winner for the second time.

"How To Plan For Tomorrow" is the title of an informative pamphlet by the Producers' Council, Inc. Factual data is presented based on studies of the Council's Market Analysis Committee. Let's not forget on our end of the line to help—

USE QUALITY PRODUCTS — **CONSULT AN ARCHITECT**

ACOUSTICAL EXPERT ADDRESSES SOUTHERN CHAPTER MEMBERS

The acoustical problems of the now world famous Pentagon, U. S. Army office building in Washington, were outlined in an informative talk by Frank R. Watson at the May meeting of Southern California Chapter, A.I.A. Mr. Watson, who now resides in Southern California, is Professor of Physics, Emeritus, of the University of Illinois, and a President of the Acoustical Society of America. He is also the author of "Sound" and "Acoustics of Buildings."

The Chapter Committee on Education made an interesting report anent the examination procedure of the State Board of Architectural Examiners. Ralph Flewelling, chairman, prepared the report.

The following chairmen of chapter committees for the year were reported as being active in the performance of their respective duties:

Membership—Charles Matchem
Legislation—Kenneth Wing
Construction Industry—Earl Heitschmidt
Public Works—John Austin
Architectural Education and Registration—Ralph Flewelling

Special Committees

Region Planning—Welton Becket
Unification—Earl Heitschmidt
Finance—Palmer Sabin
Post-War Materials—Raimond Johnson
Unionization—Theodore Criley
Chapter By-Laws Amendments—Samuel Lunden
Producers' Council Representative—A. C. Martin, Jr.

Other special committee will be appointed as the need arises.

STRUCTURAL ENGINEERS' NOTES

The Structural Engineers Association of Northern California joined with the Northern California District of the American Society of Testing Materials in an enjoyable get-together at the Engineers Club, San Francisco, the evening of May 2. Following dinner P. H. Bates, vice president of the Society, gave a talk on: "Portland Cement and the Distinctive Characteristics of the Five Different Standardized Types." Then came a delightful half hour of motion pictures: "Sea Bees Activities in the Field," a U. S. Navy picture fired with many intensely interesting views, showing the Sea Bees in actual performance of their duties.

The structural engineers are very susceptible to nice weather. With the return of warm sunny days thoughts of the annual summer outing are gathering emphasis. Some have suggested July 11th as the date. A committee has the matter under consideration. Popert and Adrian are in favor.

Austin W. Earl and **J. G. Wright** have received the "Meritorious Civilian Service" award medals from the Bureau of Yards and Docks, Navy Department, for outstanding engineering services to the Government.

The following were elected to membership in the Association: Member grade, Messrs. Isadore Thompson, A. C. Sutton, S. A. Soderstrand, Ray L. Allin; Affiliate grade, Messrs. E. Clemens Rooney and J. P. Haas.

Frederic F. Hall has been elected a director in the San Francisco Post of the Society of American Military Engineers. The Post welcomes membership among structural engineers.

"PAYNEHEAT" 30 YEARS OLD IN JULY

One hundred forty-one men and women with an aggregate of over 950 years of service with Payne Furnace Supply Company, Beverly Hills, California, were honored recently in a ceremony following a banquet, when the Board of Directors presented service pins in recognition of long association with the firm.

D. W. Payne, president of the Company, who for some months has been confined to his home by illness, celebrated his recovery as honored guest of the directors, one of whom, the Hon. Arthur L. Erb, mayor of Beverly Hills, presented him with a pin denoting over 25 years' service. ("Payneheat," in July, 1944, will pass its 30-year milestone.)

E. L. Payne, vice-president and general manager, son of the founder, was second in point of years' service, and pointed out that, of the 141 members of the Service Club, 95 had been with the company five years or more, and forty, 10 years or more.

Eligibles among the 125 Payne employees now in the armed services were also honored, and it was announced that their time, while on war leave, is being credited towards Service Club membership.

For more than two years, "Payneheat" has concentrated on war production.

WANT STANDARD MASONRY CODE

Building code officials in 2,000 communities are urged by The Producers' Council, national organization of manufacturers of building materials and equipment, to adopt standard code requirements for masonry as a means of lowering the cost of building and improving the quality of masonry construction.

Nationwide adoption of the masonry code, which was sponsored by the National Bureau of Standards and approved as an American Standard by the American Standards Association, is strongly recommended by four national trade associations directly interested in the production of masonry materials—the Structural Clay Products Institute, the National Concrete Masonry Association, the Portland Cement Association, and the National Lime Association. The types of masonry products covered by the standards include brick and tile, cement blocks, gypsum blocks, and unreinforced concrete.

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BACK THE ATTACK
BUY WAR BONDS

GAS FUEL (MAS) EVERYTHING

PAYNEHEAT

NEARLY 30 YEARS OF LEADERSHIP

Payne FURNACE & SUPPLY CO., INC., BEVERLY HILLS, CALIFORNIA

ARCHITECTS AND ENGINEERS IN WAR WORK

To prepare plans for additional facilities for the Army and Navy, the following San Francisco architects and engineers have been named and have started work on the drawings:

Navy Auxiliary Air Station, Oakland Airport: Ernest J. Kump Co., 251 Kearny Street, San Francisco.

Repairs to facilities at Hurley Marine Works, foot of Fifth Avenue, Oakland: L. H. Nishkian and Frederic R. Harris, 155 Sansome Street, San Francisco.

Additional aviation facilities at the Naval Air Station, Alameda: Messrs. Bangs, Spencer, Ambrose and Simmonson, 605 Market Street, San Francisco.

Additional docking facilities, Naval Air Station, Alameda: W. P. Day, Frank White and H. E. Squire, Financial Center Building, San Francisco.

Repairs to facilities at Bethlehem Steel Works, 20th and Illinois Streets, San Francisco: L. H. Nishkian and Frederic R. Harris, 155 Sansome Street, San Francisco.

ARCHITECTS MOVE

Robert E. Riggs has moved from 7314 Hotchkiss, El Cerrito, to 568 Fairmount Ave., Oakland.

Paul A. Thiry has moved from 544 Skinner Building, Seattle, Washington, to 606 Skinner Building.

Thomas B. Mulvin has moved from the Del Monte Hotel, Del Monte, to 1202 Architects' Building, Los Angeles.

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POST-WAR BATHROOM MEDICINE CABINET

How container size, available shelf space and packaging preference affects consumer purchases of items associated with the bathroom medicine cabinet is brought out in a survey recently made by the Home Makers Guild of America.

The Guild, a consumer research organization, is composed of typical housewives, scientifically selected to represent a true cross-section of the American buying public.

Nearly 59 per cent of the women questioned stated they follow a definite plan in the arrangement of the medicine cabinet, placing poisons on topmost shelf, prescriptions on another shelf, toilet articles on a third, etc. More than 74 per cent declared they would like a cabinet designed with shelf dividers and labels to indicate such a pre-arranged plan, if they were going out to purchase a new medicine cabinet for the home.

Volunteer comments offered by Guild consultants indicated there is too little space in the average medicine cabinet to hold all the items most women want to keep there. Consultants were asked to get the tape measure to determine overall size of their cabinets. Nearly 52 per cent found the depth to be 4 to 5 inches; 33.3 per cent have cabinets 3 to 4 inches deep; the remainder measured 5 to 6 inches deep.

Overall height of cabinets varied: the largest number of consultants, 25.8 per cent, found cabinets 17 to 19 inches high; only 2.4 per cent have cabinets as high as 29 inches; and the remainder of the consultants' medicine cabinets vary in height between these two extremes.

Width of medicine cabinets varies also from 12 to 20 inches, 40 4 per cent of the consultants naming the smaller size and 14 per cent, the large.

Consultants were asked also to measure space between shelves and this question brought out the fact that most medicine cabinets have the greatest space between the base and the first shelf, and the smallest space between fourth shelf and top. Fifty-six per cent of the women questioned stated the shelves of their medicine cabinets were not adjustable.

Further indication that there is not room in the medicine cabinet for all items appeared in the answers to a question asking consultants to designate where they stored each of 25 typical "bathroom cabinet" items. More than 87 per cent of the women questioned keep iodine in the cabinet; and 58.6 per cent keep cough syrup there. Other items kept in the cabinet by a majority of women include prescribed medicines (69.8 per cent); aspirin (85.7 per cent); mouth wash (76 per cent); castor oil (67.9 per cent); spirits of ammonia (69.7 per cent); indigestion aids (65.1 per cent); eye wash (77.2 per cent); shaving lotion (76.9 per cent); hair tonics (60.1 per cent); ointments (81.2 per cent); salves (82.2 per cent); tooth powder (79 per cent); tooth paste (77 per cent); and mercurochrome (86 per cent). Exactly half the consultants keep alcohol in the medicine cabinet.

ARCHITECT AND ENGINEER

Estimator's Guide

Giving Cost of Building Materials, Etc.

AMOUNTS GIVEN ARE FIGURING PRICES AND ARE MADE UP FROM AVERAGE QUOTATIONS FURNISHED BY MATERIAL HOUSES TO SAN FRANCISCO CONTRACTORS. 2½% SALES TAX ON ALL MATERIALS BUT NOT LABOR

All prices and wages quoted are for San Francisco and the Bay District. There may be slight fluctuation of prices in the interior and southern part of the state. Freight cartage, at least, must be added in figuring country work.

BONDS—Performance—50% of contract.

Labor and materials—50% of contract.

BRICKWORK—

Common Brick—Per 1M laid—$50.00 to $60.00 (according to class of work).

Face Brick—Per 1M laid—$120 to $150 (according to class of work.)

Brick Steps—$1.60 per lin. ft.

Brick Veneer on Frame Bldg.—Approx. $1.30 per sq. ft.

Common Brick—$19.00 per M, truckload lots, f.o.b. job.

$19.00 per M, less than truckload, plus cartage.

Face Brick—$40 to $80 per M, truckload lots, delivered.

Cartage—Approx. $4.00 per M.

BUILDING PAPER—

1 ply per 1000 ft. roll	$3.50
2 ply per 1000 ft. roll	5.00
3 ply per 1000 ft. roll	6.25
Brownskin, Standard, 500 ft. roll	5.00
Sisalkraft, 500 ft. roll	5.00
Sash cord com. No. 7	$1.20 per 100 ft.
Sash cord com. No. 8	1.50 per 100 ft.
Sash cord spot No. 7	1.90 per 100 ft.
Sash cord spot No. 8	2.25 per 100 ft.

Sash weights, cast iron, $50.00 ton.
Nails, $3.42 base.
Sash weights, $45.00 per ton.

CONCRETE AGGREGATES—

The following prices net to Contractors unless otherwise shown.

Gravel, all sizes—
$1.95 per ton at Bunker; delivered $2.50

	Bunker	Del'd
Top Sand	$1.90	$2.50
Concrete Mix	1.90	2.45
Crushed Rock, ¼" to ¾"	1.90	2.50
Crushed Rock, ¾" to 1½"	1.90	2.50
Roofing Gravel	2.25	2.80
River Sand	2.00	2.45

Sand—

River Sand	2.00	2.45
Lapis (Nos. 2 & 4)	2.85	3.15
Olympia (Nos. 1 & 2)	2.85	3.10
Del Monte White	84c per sack	

Cement—

Common (all brands, paper sacks), carload lots, $2.42 per bbl. f.o.b. car; delivered $2.72.

Cash discount on carload lots, 10c a bbl., 10th Prox.; less than carload lots $3.20 per bbl. f.o.b. warehouse or delivered.

Cash discount 2% on L.C.L.

Atlas White, Calaveras White, Medusa White } 1 to 100 sacks, $2.50 sack warehouse or del.; $7.65 bbl. carload lots.

Forms, Labors average $200.00 per M.

Average cost of concrete in place, exclusive of forms, 35c per cu. ft.; $10 cu. yd.; with forms, 60c.

4-inch concrete basement floor ..... 30c per sq. ft.

Rat-proofing 7½c

Concrete Steps ..... $1.25 per lin. ft.

DAMPPROOFING and Waterproofing—

Two-coat work, $3.50 per square.

Membrane waterproofing—4 layers of saturated felt, $7.00 per square.

Hot coating work, $2.50 per square.

Medusa Waterproofing, $3.50 per lb. San Francisco Warehouse.

Tricocel waterproofing.
(See representative.)

ELECTRIC WIRING—$12 to $15 per outlet for conduit work (including switches).

Knob and tube average $3.00 per outlet. (Available only for priority work.)

ELEVATORS—

Prices vary according to capacity, speed and type. Consult elevator companies. Average cost of installing a slow speed automatic passenger elevator in small four story apartment building, including entrance doors, about $6500.00.

EXCAVATION—

Sand, 60 cents; clay or shale $1 per yard. Teams, $12.00 per day.

Trucks, $22 to $27.50 per day.

Above figures are an average without water. Steam shovel work in large quantities, less; hard material, such as rock, will run considerably more.

FIRE ESCAPES—

Ten-foot galvanized iron balcony, with stairs, $150 installed on new buildings; $160 on old buildings.

FLOORS—

Composition Floor, such as Magnesite, 33c to 50c per square.

Linoflor—2 gages—$1.25 to $2.75 per sq. yd.

Mastapay—90c to $1.50 per sq. yd.

Battleship Linoleum—available to Army and Navy only—⅛"—$1.75 sq. yd. 3/16"—$2.00 sq. yd.

Terazzo Floors—50c to 70c per square.

Terazzo Steps—$1.75 per lin. ft.

Mastic Wear Coat—according to type—20c to 35c.

Hardwood Flooring—
Standard Mill grades not available.

Victory Oak—T & G	
25/32 x 2¼"	$143.25 per M. plus Cartage
½ x 2"	122.00 per M. plus Cartage
½ x 1½"	113.50 per M. plus Cartage
Prefinished Standard & Better Oak Flooring	
25/32 x 3¼"	$180.00 per M. plus Cartage
½ x 2½"	160.50 per M. plus Cartage
Maple Flooring	
25/32" T & G Clear	$160.50 per M. plus Ctg.
2nd	153.50 per M. plus Ctg.
3rd	131.25 per M. plus Ctg.

Floor Layers' Wage, $1.50 per hr.

GLASS—

Single Strength Window Glass	20c per □ ft.
Double Strength Window Glass	30c per □ ft.
Plate Glass, under 75 sq. ft.	$1.00 per □ ft.
Polished Wire Plate Glass	1.40 per □ ft.
Rgh. Wire Glass	.34 per □ ft.
Obscure Glass	.27 per □ ft.

Glazing of above is additional.
Glass Blocks ..... $2.50 per □ ft. set in place

HEATING—

Average, $1.90 per sq. ft. of radiation, according to conditions.

Warm air (gravity) average $48 per register.

Forced air, average $68 per register.

IRON—Cost of ornamental iron, cast iron, etc., depends on designs.

LUMBER—All lumber at O.P.A. ceiling prices—

No. 1 Common	$49.00 per M
No. 2 Common	47.75 per M
Select O. P. Common	52.75 per M

Flooring—

	Delvd.
V.G.-D.F. B & Btr. 1 x 4 T & G Flooring	$80.00
C 1 x 4 T & G Flooring	75.00
D 1 x 4 T & G Flooring	65.00
D.F.-S.G. B & Btr. 1 x 4 T & G Flooring	61.00
C 1 x 4 T & G Flooring	59.00
D 1 x 4 T & G Flooring	54.00
Rwd. Plastic—"A" grade, medium dry	82.00
"B" grade, medium dry	78.50

Plywood—

	Under $200	Over $200
"Plyscord"—3/8"	$49.50	$47.55
"Plywall"—1/4"	45.15	43.30
3 ply—2/s—1/4"	48.55	46.60
"Plyform"—5/8"—		
Unoiled	126.50	121.45
Oiled	127.90	122.75

Above prices delivered if quantity is sufficient to warrant delivery.

Shingles (Rwd. not available)—

Red Cedar No. 1—$6.75 per square; No. 2, $5.75; No. 3, $4.45.
Average cost to lay shingles, $3.00 per square.
Cedar Shakes—Tapered: 1/2" to 3/8" x 25"—$8.95 per square.
Resawn: 3/4" to 1 1/4" x 25"—$10.65 per square.
Resawn: 3/4" to 1 1/4" x 25"—$10.65 per square.
Average cost to lay shakes, $4.00 per square.

MILLWORK—Standard.

O. P. $100 per 1000. R. W. rustic $100.00 per 1000 (delivered).
Double hung box window frames, average with trim $6.50 and up, each.
Complete door unit, $10.00.
Screen doors, $3.50 each.
Patent screen windows, 25c a sq. ft.
Cases for kitchen pantries seven ft. high, per lineal ft., $9.00 each.
Dining room cases, $9.00 per lineal foot.
Rough and finish about 80c per sq. ft.
Labor—Rough carpentry, warehouse heavy framing (average), $40.00 per M.
For smaller work average, $40.00 to $55.00 per 1000.

MARBLE—See Dealers]

PAINTING—

Two-coat work	per yard 50c
Three-coat work	per yard 70c
Cold water painting	per yard 10c
Whitewashing	per yard 8c

PAINTS—

Two-coat work	50c per sq. yd.
Three-coat work	70c per sq. yd.
Cold water painting	per yard 10c
Whitewashing	8c per sq. yd.

Turpentine $1.03 per gal. in drum lots. $1.08 per gal. in 5-gal. containers.
Raw Linseed Oil—not available.
Boiled Linseed Oil—$1.38 per gal. in drums. Available only to work with high priority—$1.48 per gal. in 5-gal. containers.
Use replacement oil—$1.86 per gal. in 1-gal. containers.
Replacement Oil—$1.20 per gal. in drums. $1.30 per gal. in 5-gal. containers.
A deposit of $6.00 required on all drums.

PATENT CHIMNEYS—

6-inch	$1.20 lineal foot
8-inch	1.40 lineal foot
10-inch	2.15 lineal foot
12-inch	2.75 lineal foot

PLASTER—

Neat wall, per ton delivered in S. F. in paper bags, $17.60.

PLASTERING (Interior)—

	Yard
3 Coats, metal lath and plaster	1.50
Keene cement on metal lath	1.80
Ceilings with 3/4 hot roll channels metal lath (lathed only)	1.20
Ceilings with 3/4 hot roll channels metal lath plastered	2.20
Single partition 3/4 channel lath 1 side (lath only	1.20
Single partition 3/4 channel lath 2 inches thick plastered	3.20
4-inch double partition 3/4 channel lath 2 sides (lath only)	2.20
4-inch double partition 3/4 channel lath 2 sides plastered	3.85
Thermax single partition; 1" channels; 2 1/4" overall partition width. Plastered both sides	3.30
Thermax double partition; 1" channels; 4 3/4" overall partition width. Plastered both sides	4.40
3 coats over 1" Thermax nailed to one side wood studs or joists	1.65
3 coats over 1" Thermax suspended to one side wood studs with spring sound isolation clip	1.90

Note—Channel lath controlled by limitation orders.

PLASTERING (Exterior)—

	Yard
2 coats cement finish, brick or concrete wall	$1.00
3 coats cement finish, No. 18 gauge wire mesh	2.00

Lime—$3.00 per bbl. at yard.
Processed Lime—$3.10 bbl. at yard.
Rock or Grip Lath—3/8"—20c per sq. yd.
1/2"—19c per sq. yd.

Composition Stucco—$1.80 to $2.00 sq. yard (applied).

PLUMBING—

From $100.00 per fixture up, according to grade, quantity and runs.

ROOFING—

"Standard" tar and gravel, 4 ply—$8.00 per sq. for 30 sqs. or over.
Less than 30 sqs. $9.50 per sq.
Tile, $30.00 to $40.00 per square.
Redwood Shingles, $7.50 per square in place.
5/2 #1-16" Cedar Shingles, 4 1/2" Exposure ..... $8.00 square
5/8 x 16"—#1 Cedar Shingles, 5" Exposure ..... $9.00 square
4/2 #1-24" Royal Shingles, 7 1/2" Exposure ..... $9.50 square
Re-coat with Gravel $4.00 per sq.
Asbestos Shingles, $23 to $28 per sq. laid.
1/2 x 25" Resawn Cedar Shakes, 10" Exposure $10.50
3/4 x 25" Resawn Cedar Shakes, 10" Exposure 11.50
1 x 25" Resawn Cedar Shakes, 10" Exposure 12.50
Above prices are for shakes in place.

SHEET METAL—

Windows—Metal, $1.75 a sq. ft.
Fire doors (average), including hardware $2.00 per sq. ft.

SKYLIGHTS—(not glazed)

Copper, 90c sq. ft. (flat).
Galvanized iron, 40c sq. ft. (flat).
Vented hip skylights 60c sq. ft.

STEEL—STRUCTURAL (None available except for defense work).

$150 ton (erected), this quotation is an average for comparatively small quantities. Light truss work higher. Plain beams and column work in large quantities $140 per ton.

STEEL REINFORCING (None available except for war work).

$150 to $200 ton, set.

STONE—

Granite, average, $6.50 cu. foot in place.
Sandstone, average Blue, $4.00. Boise, $3.00 sq. ft. in place.
Indiana Limestone, $2.80 per sq. ft. in place.

STORE FRONTS (None available).

TILE—

Ceramic Tile Floors—70c to $1.00 per sq. ft.
Cove Base—$1.10 per lin. ft.
Glazed Tile Wainscot—$1.25 per sq. ft.
Asphalt Tile Floor 1/8" & 3/16"—$ .18 to $ .35 per sq. ft. Light shades slightly higher.
Cork Tile—$ .40 to $ .75 per sq. ft.
Mosaic Floors—see dealers.
Lino-Tile, $ .35 to $ .75 per sq. ft.

Wall Tile—

Glazed Terra Cotta Wall Units (single faced) laid in place—approximate prices:

2 x 6 x 12	$1.10 sq. ft.
4 x 6 x 12	1.25 sq. ft.
2 x 8 x 16	1.20 sq. ft.
4 x 8 x 16	1.40 sq. ft.

VENETIAN BLINDS—

40c per square foot and up. Installation extra.

WINDOWS—STEEL—

30c per square foot, $5 for ventilators.

Less than 50 per cent of the women consulted keep the following items in the medicine cabinet: hand lotion, mineral oil, spirits of turpentine, baby oil, epsom salts, sodium bicarbonate, vitamins and talcum powder. These products are stored in the linen closet, the pantry shelf, the window ledge and other places throughout the home. In some cases, the women felt it was more convenient to keep products in places other than the medicine cabinet, but the main reason for storing items elsewhere seemed to be lack of space in the cabinet, it was brought out in consultants' voluntary comments.

That women seem to be conscious of the fact that dry chemicals and certain other products are affected by bathroom heat, moisture and humidity was seen in answers to a question asking whether they attempted to buy such items in an airtight, resealable package. Seventy-three per cent of the consultants answered "yes" to this question.

Further indication that women like packages that are airtight, showed up in a question asking how the same 25 typical "bathroom cabinet" items were now packaged and how they would like to see them packaged. Packaging preference on ointments and salves was about evenly divided between glass and tin, but with the exception of talcum powder, tooth powder and tooth paste, packaging preference was overwhelmingly in favor of glass.

TO CONTROL LUMBER DISTRIBUTION

A proposed plan to establish an integrated control over the distribution of lumber was presented to eight lumber industry advisory committees last month and has been favorably received, the War Production Board reports.

The general purpose of the plan is to balance demand and supply. One of the chief difficulties in achieving this balance up to the present time has been the lack of accurate over-all information on demand, WPB officials said. Existing lumber orders control some, but not all species, and in some instances part, but not all production of a particular species.

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1944 BUILDING TRADES WAGE SCALES (JOB SITE) NORTHERN CALIFORNIA

Six- and seven-hour day eliminated on all Government Work. A. F. L. - O. P. M. Agreement calls for eight-hour day.

NOTE: Predeterminations by the Department of Labor, as of July 1 (the wage-freezing date) have not yet been made in all of the counties listed. The wage scales shown are those being paid and in effect mostly by agreement between employers and their union.

CRAFT	San Francisco	Alameda and Contra Costa	Fresn	Marin	Sacramento	San Jose	San Mateo	Vallejo	Stockton
ASBESTOS WORKERS	1.50	1.50	1.25	1.50	1.50	1.25	1.50	1.50	1.25
BRICKLAYERS	1.87½	1.87½	1.75	1.87½	1.75	2.00	1.79-1/6	1.75	1.58
BRICKLAYERS, HODCARRIERS	1.40	1.40	1.05	1.40	1.05	1.50	1.35	1.50	1.14
CARPENTERS	1.50	1.50	1.25	1.43¾	1.37½	1.37½	1.43¾	1.50	1.37½
CEMENT FINISHERS	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
ELECTRICIANS	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70
ELEVATOR CONSTRUCTORS	1.75½	1.75½	1.75½	1.75½	1.75½	1.75½	1.75½	1.75½	1.75½
ENGINEERS: MATERIAL HOIST	1.50	1.50	1.25	1.50	1.37½	1.62½	1.50	1.37½	1.25
PILE DRIVER	1.75	1.75	1.60	1.75	1.75	1.75	1.75	1.75	
STRUCTURAL STEEL	1.75	1.75	1.60	1.75	1.75	1.75	1.75	1.75	1.60
GLASS WORKERS	1.40	1.40	1.12½	1.40	1.12½	1.21	1.40	1.40	
IRONWORKERS: ORNAMENTAL	1.60	1.50	1.60	1.50	1.60	1.31¼	1.50	1.50	
REINF. RODMEN	1.50	1.50	1.60	1.50	1.50	1.60	1.50	1.50	1.25
STRUCTURAL	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.37½
LABORERS: BUILDING	1.00	1.00	.90	.87½	.95	.90	.93¾	.90	.90
CONCRETE	1.00	1.00	.90	.87½	.95	.90	.93¾	.95	1.00
LATHERS	1.75	1.75	1.50	1.75	1.60	1.75	1.75	1.75	1.75
MARBLE SETTERS	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
MOSAIC & TERRAZZO	1.25	1.25	1.12½	1.25	1.15-5/8	1.12½			
PAINTERS	1.50	1.50	1.28-4/7	1.50	1.43	1.50	1.42-6/7	1.64-2/7	1.37½
PILEDRIVERS	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54
PLASTERERS	1.75	1.83½	1.75	1.75	1.75	2.00	2.00	1.75	1.83-1/3
PLASTERERS' HODCARRIERS	1.50	1.60	1.40	1.50	1.18¾	1.50	1.75	1.50	1.50
PLUMBERS	1.70	1.70	1.53-1/8	1.70	1.68¾	1.62½	1.70	1.70	1.50
ROOFERS	1.50	1.50	1.25	1.37½	1.37½	1.37½	1.25	1.37½	1.37½
SHEET METAL WORKERS	1.50	1.50	1.50	1.50	1.50	1.50	1.37½	1.50	1.50
SPRINKLER FITTERS	1.58	1.58	1.53-1/8	1.70	1.68¾	1.62½	1.70	1.70	1.50
STEAMFITTERS	1.75	1.75	1.53-1/8	1.70	1.68¾	1.62½	1.50	1.70	1.50
STONESETTERS (MASONS)	1.87½	1.87½	1.50	1.75	1.75	1.50	1.75	1.75	1.50
TILESETTERS	1.50	1.50	1.37½	1.50	1.37½	1.50	1.50	1.50	1.37½

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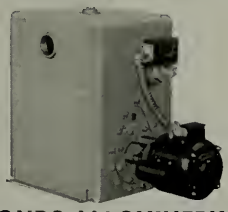

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LETTERS

(Continued from Page 9)

April 1942 Military Engineer. I witnessed the work of the California group, admired their efforts and was prone to give them all credit on the evidence.

As an interested bystander it appears to me that many good ideas have a way of springing up independently at different places. However, I shall not attempt to be judge in this case. Possibly reference to the Greek word "Synergysm" may suggest the proper situation.

MICHAEL GOODMAN.

Berkeley, California.

WILL DAY DREAMS NEVER CEASE?

Editor,

Architect and Engineer:

The following from the American Builder seems to me to merit reprinting in your worthy publication:

"The Ladies' Home Journal has joined the procession of magazines that seem to be carrying on a day dream campaign to mislead and confuse the public about what to expect in a post-war house. In the January issue it illustrates another 'house of the future' that is so preposterous that even though it is accompanied by a large picture of Henry Kaiser who seems to endorse it, the public will surely detect its impracticability.

"Although intended for the mass market, this structure sprawls over so much ground it would not fit one normal building site in 1,000. The 3-bedroom model has some 1,500 square feet of floor area, two baths, a prefabricated fireplace, also—all for $4,000!"

WALTER FARLEY.

Berkeley.

ECHOES OF KAWNEER COMPETITION

Editor,

Architect and Engineer:

It was pleasant to again see a picture of the Dorr residence at Palos Verdes by Architect Risley.—(Architect and Engineer for March.)

This pleasantness was increased by the drawings submitted in the Kawneer Co. competition for "new trends in post-war store fronts."

Evidently this ends the era of the muchly discussed modern and introduces the new more ghastly era of surrealist architectural drawing. I mention architectural drawing because it would appear doubtful if there will be many cultured enough to invest cash in buildings like the ones shown—even if the building department could be induced to issue a building permit.

However such an era would not be without promise. Suppose that architectural eras could be reduced to 90 days, like millinery and hairdressing eras. The advertising could then be consolidated for wider coverage and unified timing. While the fashion magazines and radios were occupied in inviting the lovely ladies in through their newest surrealist dream—like facades for the latest creations of Lady Pester's personalized cocktail lounge lures—architects, milliners and hair dressers could collectively inspire each other in their jointly operated drafting rooms with next season's facades, head ornaments and hair-dos.

The advantages of converting old once-in-a-lifetime clients into steady ones, such as they are steady on the books of the gas company, will be obvious to all. Knock out a new facade together with details for store fixtures, elevators and mechanical equipment every 90 days and send him his regular quarterly statement. Ole! viva Salvador Dali, viva surrealism, viva architecture, viva millinery, viva hair dressing, viva the consolidation, viva, viva!

But suppose when the war is over and inventory is taken of the country's remaining resources, no such period of carefree squandering of material and labor will be possible; and it is found that the new transparent streamlines in color by Prefabricated Plastic Electronics Inc., cost twice as much as an old timer with a reinforced concrete chassis and a brick skin. What then?

Has anything ever been built on the West Coast during the last 100 years that will help us out of such a grave situation? Especially if science fails to control the elements, as one of the designers is expecting for the success of his scheme? I think there are many such buildings. Buildings that are far better examples of beauty, honesty and good construction than any ever built in Europe, Asia, Africa, or elsewhere.

Little shop buildings too that not only

A store front that reveals the interior of the store.

comply with every detail of this competition but have a proven record of many additional and equally important advantages.

In the first place there is nothing new in the objective of this competition, i. e., "the primary store front problem of attracting the interest of the passer-by and getting him into the store." This idea is common to the oldest bazaar in history and to the newest of Ruth St. Dennis on Sunset Boulevard in Hollywood.

A good example of store identification with attractive front to interest passer-by.

Rents have always been high around St. Marks Plaza in Venice, Italy, for no other reason than that the architects hit upon such

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good solutions to this very storekeeper problem, hundreds of years ago. But back to California and the everyday problem of getting passers-by into storekeepers' stores.

These pictures show a market located at 5201 Hollywood Boulevard in Los Angeles which has a proven record for actually accomplishing the results specified by this competition.

L. S. SANDERSON, Architect.
Los Angeles.

SANTA BARBARA COURT HOUSE

Editor,
Architect and Engineer:

I like Architect and Engineer and enjoyed the April issue, and read with interest the article "California Here I Come" by Sewall Smith, in which he gives quite a good description of the Santa Barbara Court House.

I wish you would mail a copy of this issue to Mr. Herb Orriss of the Santa Barbara News Press. I am sure he will be able to reproduce some of it in the Morning Press.

Cordially yours,
Santa Maria. FRANK J. McCOY.

ENJOYS READING THE A. & E.

Editor,
Architect and Engineer:

I enjoyed very much reading over the week end your April issue with Wurster's criticism of the A.I.A., Smith's "California, Here I Come," and Giedion's "We Have to Make Order." The series of notes of what is going on up North I also enjoyed. . . .

With best wishes for the continued success of Architect and Engineer, I am,

Sincerely,
PAUL R. HUNTER, A.I.A.
Los Angeles.

PREFABRICATORS, ATTENTION!

Editor,
Architect and Engineer:

I wish to obtain the names of those firms who have signified their intention to manufacture prefabricated homes after the war . . . or if this information is not available, the names of those who were in this business when the war began. Anthing you may have on this topic will be appreciated.

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• ARCHITECT AND ENGINEER

Vol. 157 No. 3

FRED W. JONES, Editor
MARK DANIELS, Associate Editor
MICHAEL GOODMAN, Post-War Planning
L. H. NISHKIAN, Consulting Editor
E. N. KIERULFF*, Ass't Editor
*In the Service

★

JUNE

COVER: A New Spot in San Francisco's Skyline. Seventeen story Appraisers Building is shown at extreme right of picture.
Photo by Gabriel Moulin Studios.

PHOTOGRAPHY: Appraisers Building, Gabriel Moulin Studios.

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RUNNING FIRE — by MARK DANIELS

• *BE DEFINITE*

A talk to Architects by Pedantus Piddle, Ph.D.

"At the last meeting of your Architectural Society one of your members brought out the need for architects to be 'positive,' not 'negative.' That is the way I like to hear you talk! You must be definite. The public demands it.

"We have had past planning, we now have present planning, and we will have future planning. You may not have realized this but it is true; you cannot escape it. The dynamics of these truths burst upon us like a comet, and like a comet they must come to earth. We must be definite and we must plan, and plan, and plan. That is what makes us architects. We must be alive to the problems that confront us. Be definite and you will have a man at every draughting board.

"There are national problems, state problems and city problems which need proper planning. Go to work on them. Develop organizational cohesiveness and stick to planning. Only by doing so can you become definite. Don't be a homunculus, be a titan in your work, for knowing exactly what to do and where to begin, as I have pointed out, will keep uninterrupted the flow of desired remuneration."

• *IN OTHER WORDS*

In the June, 1943, issue of Architect and Engineer this column carried an item entitled "The Post-War House," couched in a facetious vein calculated to ridicule the extremes to which some laymen feel the post-war house will go. The "Weekly Bulletin" of the Michigan Society of Architects has come out, in the May 16, 1944, issue with a mild and sane treatment of the same subject. I quote the "Bulletin":

"What the post-war homeowner will get in the way of a house and modern equipment, will be no more or less than what he would be living in and using right now if there had been no war, three nationally known speakers said at a Post-War Home Building Conference in Boston recently."

In a discussion of war-time housing trends the trio joined in outlawing the "Hamburger Heaven House," with its "pushbutton penalties," as a post-war possibility. They relegated to the "age of miracles" any presumptuous idea that "soundly constructed, livable homes will be built for $2,000 to $3,000."

Bordering on the spirit of the item in Running Fire of last June, the article continues: "At the risk of being called a piker, Mr. Goldman refused to climb into the stratosphere of fascinating ideas on houses such as the disposal 'Kleenex House,' the circular or 'Hamburger Heaven Home,' the 'Foxhole Home,' or the 'Pushbutton House.' "

It seems that we are coming out of the gadget nightmare back to a sane outlook.

• *IT MAY BE WORTH IT*

The Podunk Medical Chapter, Dinner at 6:30 p.m.
Will be followed by a lecture by
DR. W. NOODLE
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• *SO WHAT!*

To interpret that over used phrase of the innumerable bureaucrats, "Ignorance of the Law," calls for two definitions: what is ignorance and what is law? Those alphabeteers have come to a point where the merest suggestion of a procedure is interpreted by them as law and the failure of anyone to make sense out of their rigmaroles, as ignorance. The following is an example, issued January 3, 1944, by the War Production Board (WPB), Controller Division, Washington, D. C.:

"CHANGE IN THE MEANING OF THE SYMBOL S.

"The office of Civilian Supply of the War Production Board was originally assigned the letter S to identify its allotments under the Controlled Materials Plan. This agency was the general claimant for CMP Class B Products and other programs for which allotments would be issued through the WPB Divisions, and accordingly, the allotment numbers established for these products and programs were prefixed with the letter S. Before the Controlled Materials Plan was put into operation, however, the presentation of requirements and the issuance of allotments for Class B Products and repair parts were made the responsibility of the Office of Operations Vice Chairman. Thus, the letter S was shared in the second quarter 1943 by the office of Civilian Supply and the office of the Operations Vice Chairman. Subsequently, the office of Civilian Supply transferred to the Office of the Operations Vice Chairman all its remaining materials for miscellaneous Class A Products and industrial construction, and thereafter the letter S was no longer associated with the office of Civilian Supply. Its successor, the Office of Civilian Requirements, was assigned the letter V to identify its programs."

SO WHAT!

• *SEVEN YEARS AFTER*

Seven years ago Running Fire carried the following excerpts from an item entitled, "How to Treat an Architect":

"Of course no one should ever pay an architect. Money is bad for them. When they receive a full fee they break out in a rash and run around in circles. Never do what they tell you to do until you are out of sight. Letting an architect know that you think he is right may cause high blood pressure. Under no circumstances should you tell him his work is good. It might make him happy, or even smile, and the asylums are full of happy architects.

"If an architect has designed a house for you which is admired by all your friends, never admit that he did it. Always say that you and the wife worked it out and just had a fellow draw it up on paper. * * * Don't let an architect try to tell you what kind of paint, glass, tile, lumber or cement to use. When he tries to do that, give him a wise leer and he'll know you are on to him. * * * These are a few minor hints but enough to furnish inspiration for other methods of keeping architects in their places, the opinionated bums."

After seeing the beautiful new Appraisers Building it would seem impossible that people could follow those instructions. Will they? Well, what do you think?

NEWS AND COMMENT ON ART

LEGION OF HONOR PALACE HAS BEQUEST OF 1 MILLION DOLLARS

With the death in San Francisco, on May 16, of H. K. S. Williams, retired millionaire lumberman and art patron of New York, the California Palace of the Legion of Honor became the beneficiary of approximately one million dollars, probably the largest bequest on record for any public museum in the Pacific Northwest.

This fund, chiefly in securities, is on deposit in a New York bank, which will act as trustee, remitting the interest to the Museum for the next 30 years for the purchase of paintings, tapestries and bronzes to add to the already large and splendid Mildred Anna Williams Collection. At the expiration of the 30-year period, the principal is to be liquidated within five years and spent in the same manner for additions to the collection.

The trust provides that the selection of important works of art to be added to the collection will be determined by the Director of Museum, with the approval of a majority of the Board of Directors.

The Mildred Anna Williams Collection was presented to the California Palace of the Legion of Honor by H. K. S. Williams in March, 1940, in memory of his wife, who had died the previous year. They decided in 1928, to deed the collection, then in their home in Paris, to the California Palace of the Legion of Honor, retaining its use during the lives of both.

RAYMOND PUCCINELLI EXHIBIT STILL SHOWING AT DE YOUNG MUSEUM

The unusually large one-man exhibition by the San Francisco sculptor, Raymond Puccinelli, still on at the de Young Museum, is well worth an inspection.

Puccinelli is a familiar name to museum goers in this area, his works having been frequently exhibited in Art Association shows and exhibits of contemporary sculpture on both sides of the Bay. Also, visitors will recall his six figures which adorned the facade of the San Francisco Building at the World's Fair, as well as several other pieces within the Art Building on Treasure Island.

Exhibiting throughout the United States and Latin America, the sculptor's work has won him numerous awards and mentions and has been purchased by many private and public collections. Commissions include a heroic-sized black granite "Panther" for the campus of the Salinas Junior College, wood panels and furniture for the San Francisco Stock Exchange, panels for the Pacific National Bank Building, S. F., and interior sculptures and reliefs for the Corpus Christi Church in Piedmont.

The artist studied independently with various sculptors in his native city, as well as in New York and Italy, also at institutions such as the California School of Fine Arts and the Rudolph Schaeffer School of Design here. At present Mr. Puccinelli is a member of the faculties of the University of California and Mills College.

The current one-man sculpture exhibit is a large and comprehensive one, including forty-five works and covering a period of over a dozen years. Heads and busts, standing, sitting and reclining figures, fish and animal studies, form an exceptionally wide range of materials—marble, granite, bronze, terra cotta, mahogany, pewter, aluminum, onyx and porcelain—give a total effect of great diversity and mastery of medium.

PORTRAIT OF A NEGRESS by Thomas Waterman Wood, American, 1823-1903
Latest acquisition to the Mildred Williams Collection at California Palace, Legion of Honor, San Francisco.

FRANK LLOYD WRIGHT IS DESIGNING BUILDING FOR GUGGENHEIM COLLECTION

After three moves and one separation, the Solomon R. Guggenheim collection of non-objective and modern paintings will one day be reunited under a single roof designed for it by Frank Lloyd Wright—across the street from the National Academy. Hilla Rebay, trustee and curator of the Solomon A. Guggenheim Foundation, announces that the corner lot at 89th Street and Fifth Avenue, New York, has been bought, and Wright has been at work on plans for the building for several months.

When the Museum of Non-Objective Art opened in 1939, the more representational canvases in the collection were left behind at the Plaza Hotel, where they might be seen by appointment. This group contains outstanding early paintings from the School of Paris.

Construction will begin on the new museum as soon as materials are available.

Among the many activities of the Foundation, is the granting of scholarships. This year $12,000 has been granted for scholarships for research in non-objectivity.

IN AN EVER CHANGING WORLD

N. Y. MUSEUM OF MODERN ART SHOWS LATIN-AMERICAN WORKS

On Wednesday, May 31, W. W. Crocker, president of the San Francisco Museum of Art, and the Women's Board of the Museum, were hosts at a reception in honor of the opening of an exhibition of paintings, drawings and prints from the collection of the Museum of Modern Art in New York. Diplomatic representatives of Latin American countries, members of clubs and organizations active in Pan American affairs, and Museum members attended.

The Museum of Modern Art's Latin American collection was begun in 1935 with Mrs. John D. Rockefeller's gift of Orozco's **Subway.** It is now the most important collection of its kind in the world, consisting of 294 oils, watercolors, drawings, prints, frescoes, posters, sculptures, and photographs, 54 of which are being shown here. This group, recent acquisitions for the most part, includes examples from Argentina, Bolivia, Brazil, Colombia, Cuba, Chile, Ecuador, Peru, Uruguay, and an especially large number of fine works by Mexican artists.

JUVENILE COLOR PRINTS BY CHET LA MORE, MERVIN JULES

"Color Prints for Children," designed by Chet La More and Mervin Jules, form an interesting exhibit for both young and old at the California Palace of the Legion of Honor, Lincoln Park.

Capturing the child's love for vigorous design and color, the artists have succeeded in blending the subject matter and whimsey of the child's world with the skill of the mature artist.

"Most artists who produce pictures for children fail to reach the child," declares Victor D'Amico, "because they portray an adult concept of the child's world, often betraying a nostalgia and sentimentality for their own childhood or, which is worse, portraying an artificial and saccharine world of pretties. Such influences tend to distort the child's aesthetic sense at the most impressionable and formative period. Much of the bad taste of American adults may be traced to the bad art in picture books and nursery decorations of their early childhood.

"Jules' and La More's prints not only recognize the child's creative powers, but they stimulate and sharpen his aesthetic sensibilities. These pictures embody an awareness of the best practices and principles of modern education. Parents and teachers, and all those who cherish the fine qualities of children, will be grateful to these artists."

STUDENT WORK EXHIBITED AT CALIFORNIA FINE ARTS SCHOOL

California School of Fine Arts, San Francisco, is holding its annual student exhibition and in general it reflects a nicely balanced trend toward intelligent modernism. Scattered about the galleries are a few abstractions, a number of grotesques and many interpretative works, all of which are understandable, leaving one with the feeling that each represents a conscious effort on the part of the artist to depict the subject in a serious creative manner.

The following Awards of Merit are announced:

Life Drawing—Hilary Allen, Florence Bruntjen, Doris Jane Rowlands, E. Cornelia Skinner.

Life and Portrait Painting—Betty Attwater, Florence Barnes, John Fitch, Laurel Hirshfield, Bartley Holden, Janice Illig, Bertha Neilson, Helen Rhodes,

THE GUARDIANS OF THE CHILDREN'S CHARITY HOME Jan de Bray, Dutch, 1627-1697
Loaned to deYoung Museum by the Frans Hals Museum, Haarlem

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ZELINSKY, D., & Sons. 2nd Cover

William Schwan, Edward Schembari, Robert Skinner, Jane Zobel.

Still Life Painting—Parker Frisselle, Jr., Kathleen Greenlund, Virginia Herbolic, Barbara Leve, Jerome Vloeberghs.

Drawing and Composition—Gladys Ferguson, Kathleen Greenlund, Virginia Herbolic, Emily Jung, Marilyn Miller, Roseadele Picchi, Juliette Steele.

Sculpture—Robert Furrer, Janice Illig, Katherine Malott.

Ceramics—Lucille Ross, Caroline Williams.

Lithography — Edward Freedman, Anne Elizabeth Mailliard.

Commercial Art—Anthony Pempe.

Saturday Classes — Richard Baker, Loran Chandler, Judith Larsen, Rosslyn Sloss, Nancy Thompson.

The show, which definitely merits the attention of those interested in the development of art in the Bay area, will be open to the public until July 1.

THIRD ALL-OREGON EXHIBITION AT THE PORTLAND ART MUSEUM

During June the Portland Art Museum is presenting its Third All-Oregon Exhibition, a cross-section of the art of the state. Every two years such an exhibition is held to which all artists living in Oregon and in the near-by Columbia River region are invited to send their works. They are assured that at least one entry will be shown. In addition the Museum undertakes to find at least ten patrons who promise to purchase one work each from the exhibition, thus setting an example to the rest of the community in this plan to bring the creative artist and his fellow-Oregonians into closer relationship.

This year one hundred and sixty-two artists have sent work, and something over 200 works are being exhibited — oils, tempera paintings, water-colors, and sculpture. Geographically the state is widely represented, much more so than in the two previous exhibitions of this kind, which is an encouraging sign that the ripples of interest are spreading farther and farther from Portland. A separate section is devoted to the work of Oregon men in the armed forces, or any man stationed in an Oregon camp. There is also a special section from workers at the shipyards, segregated solely at the request of the officials of those yards.

Concurrently the Museum is showing the annual exhibition of work from the Museum Art School. Here students from the day school, the Evening Workshops and the Saturday Children's Classes are represented by examples from the classes in painting, drawing, composition, design, sculpture, ceramics, weaving and general art.

ART NOTES

Picture & Gift Journal reports: "Itemizing the portraits in San Francisco City Hall, Jim Leary first listed them as '42 Mayors, framed.' Then as '42 framed Mayors.' Finally he gave up in disgust, played safe and identified them as '42 pictures of former Mayors.'"

Director William H. Clapp is exhibiting some 30 paintings at his own Oakland Art Gallery. The canvases serve to illustrate Clapp's artistic philosophy of Visualism, a postulate of painting on which he has spent many years of study, thought, and work.

EMPIRE HARDWALL PLASTER for BETTER WALLS

San Francisco's New U. S. Government Appraisers Building

represents another triumph in Applied PLASTER CRAFT CONSTRUCTION. Empire Hardwall Plaster was used to assure strength, uniformity, permanence and beauty of the interior walls.

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San Francisco
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FRANCISCO LOS ANGELES PORTLAND SEATTL

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Supply those who work or play with fresh, sanitary drinking water. Install HAWS Sanitary Drinking Fountains and Faucets and be sure of complete sanitation in drinking water facilities. HAWS meet the requirements of the American Public Health Association in regard to design, construction and operation of sanitary drinking fountains. HAWS Drinking Fountains, Faucets, Electric Water Coolers and Parts are available for immediate delivery. Under the revised W.P.B. Limitation Order L-79, HAWS products are among specified items which are free from restriction. **Plan now to install HAWS!**

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To attain indoor-outdoor living at its best, residential steel casements must combine beauty with efficiency. Soulé Steel casements have been designed to include all features essential to the many future types of home construction. In addition they meet all the requirements for operation and arrangement to accommodate shades, venetian blinds, draperies and screening. Soulé window engineers will gladly assist you now with your window problems.

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SAN FRANCISCO

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IN THE NEWS

TWO YEARS IN AFRICAN JUNGLES

After two years of duty in Africa and the Middle East, Lieut.-Col. E. L. Norberg has returned to his home in Burlingame and is looking forward to the resumption of his architectural practice as soon as the war has been won. Lieut.-Col. Norberg's latest contribution to the profession and the building industry prior to Pearl Harbor was the publication of an index for architects, giving building material information with names of manufacturers, their products and their Coast representatives.

Lecturing before the Burlingame Rotary Club recently, Lieut.-Col. Norberg described the hazards of building airports across Central Africa. Mosquitoes and the tropical diseases they carry were the Army's worst hazards, he said, but indicated that persistent effort has brought the mosquito situation well under control. Living conditions for American soldiers stationed in jungle regions of Africa now are quite comportable, he asserted, thanks to effective sanitary measures introduced by our American fighters.

DE LUXE OFFICE FOR EISENHOWER

A de luxe field office for General Dwight D. Eisenhower has been designed by George Vernon Russell, architect of Hollywood, and constructed under the supervision of Architect Eduardo Samaniego and Raymond Cherry of Los Angeles. The two-unit caravan was built by the Eighth Air Force repair depot and consists of an operations headquarters and living quarters hauled by a semi-tractor. It is described as a study in glistening chrome, highly polished black linoleum floors, delicately tinted pearl gray walls and ceilings and green leather upholstered furniture.

The operations van measures 60 feet in length and is a marvel in compactness. It has a conference room for Eisenhower and his staff. Battle maps are wound on recessed rollers tucked into the ceiling, while a motion picture screen can be unrolled at the other end of the van for the projection of reconnaissance films. A hidden safe probably will serve as a cache for some of the most secret papers in the world. Ample drawer and file space is outlined by shining chrome.

IDEAL ENGINEERING GRADUATE

An effort to formulate a description of the ideal engineering school graduate—as an engineer and as a citizen—for use as a basic guide in attacking the problems of post-war engineering education, is being made at the Cooper Union School of Engineering.

A faculty committee under the chairmanship of Dr. Louis M. Heil, head of the Department of Physics, has been appointed to make a comprehensive study of the type of engineer the Cooper Union should endeavor to produce. This committee will consider not only the student's training in the specific subject matter of engineering, but also his ability to take his proper place after graduation as an active and valuable member of a democratic society.

The committee hopes, Dean Bateman said, to prepare a set of "specifications" which will describe the "whole" graduate in terms of all types of educational experience, rather than in terms of academic requirements alone. The committee will seek answers to such questions as these:

What information should the graduate possess? What abilities and skills should he have? What basic attitudes and beliefs should he cherish? What kind of interests should he have?

BUILT-IN ELECTRICAL SERVANTS

The electrical wonders promised for the post-war era will be built right into new houses and sold as a part of them, according to J. H. Squires, Jr., field supervisor of the Westinghouse Better Homes Department.

Said Expert Squires: "It is a 'must' for the building industry to create not shelter but complete living units if American housing is to hold its own with the balance of our living economy."

Mr. Squires suggested nine phases of the home in which electrical equipment could play an important part in making it more attractive to prospective owners. Among them were good lighting, air cleaning and cooling, a planned electric laundry and kitchen, and better wiring.

If new home owners after the war are to take advantage of the technical knowledge gained in war research, they must plan to spend more money for better wiring. Otherwise the electrical system will not be able to carry the heavier load the new aids to convenient living will impose upon it.

He warns bankers: "Poor wiring is a major handicap to your future business and ours," and emphasizes that electrical living is what the American housewife has been waiting for.

"If the banker and the architect and the builder don't make the first moves, he declared, "she will find she has a fine new house—1934 style."

Post-war kitchens, he said, will have electrical equipment to wash the dishes, dispose of refuse, and dispel cooking odors, while the laundry will be equipped electrically for washing, rinsing, drying, and ironing.

LUMBER SHORTAGE FOR "DURATION ONLY"

There need be no lack of lumber for post-war building, say two officials concerned with current shortages which they attribute to war-time production difficulties and not a deficiency of timber in the woods or a lack of manufacturing capacities.

"Despite the war, the United States is taking less saw timber from the forests now than during the years

(Turn to Page 12)

LIGHT AND MORE LIGHT

Lights, lights and more lights — that's what people want in the post-war home, according to questionnaires trickling in from some 300,000 purchasers of the Small Homes Guide of the National Home Builders' Bureau, Inc. Following are some of the specific "musts":

- 84% want lighted home numbers
- 78% want fluorescent shaving lights
- 67% want lighted closets
- 58% want illumated kitchen sinks
- 57% want center ceiling light for kitchen
- 52% want backyard lights
- 50% want lighted work garages and kitchens
- 49% want desk lamps
- 48% want lights over steps
- 45% want lights over basement work benches
- 44% want makeup lights for boudoirs
- 42% want garage lights
- 41% want light over laundry tubs
- 41% want light over full length mirrors
- 38% want game lights
- 37% want fluorescent bed lights
- 34% want lights over range
- 33% want low intensity night lights
- 30% want ultra violet health lights
- 29% want sewing lights
- 29% want dinette lights
- 27% want davenport lights

THE ENGINEER

The Engineer spends years in college
Acquiring complicated knowledge.
He studies structures, math, finance,
The anticlines of Southern France.
He's learned most every other fact;
He ought to read the Wagner Act.

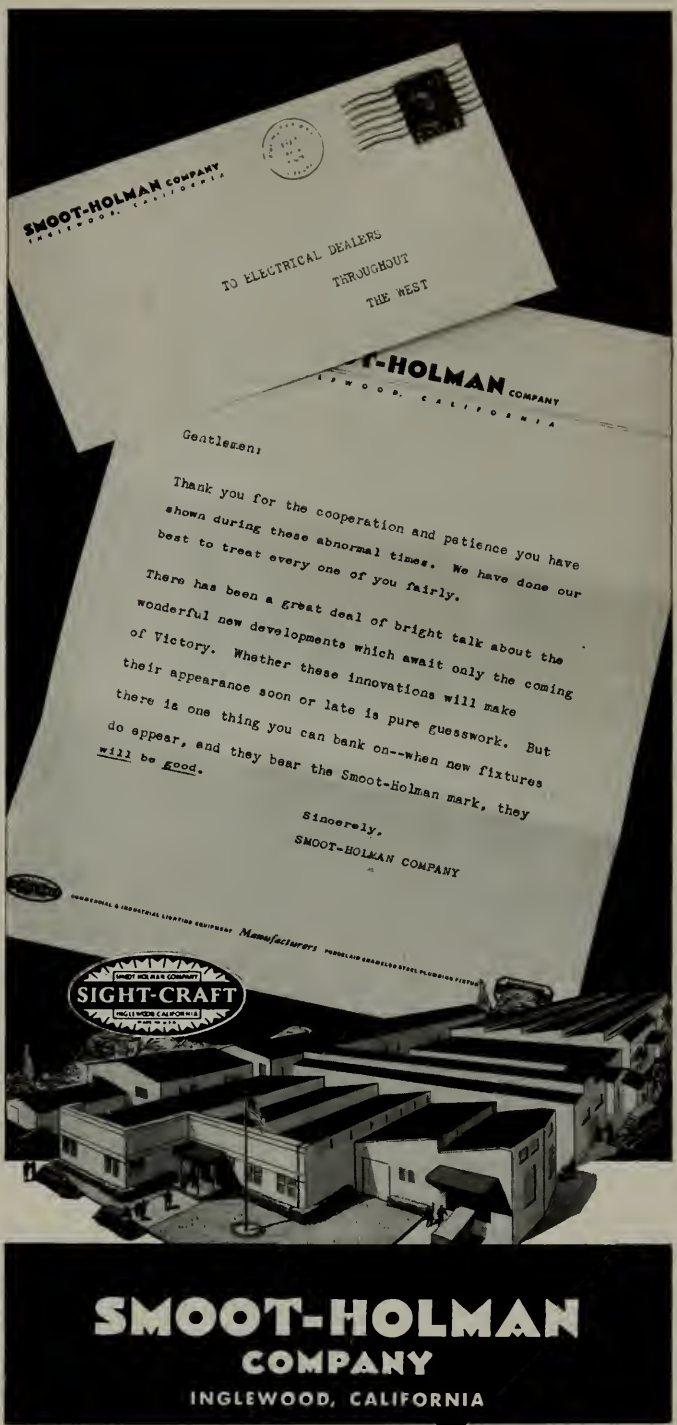
The Engineer's a wise old thing
Who spends his life in answering
Why something busted all to Hell
And substitutes will do as well.
The only thing he doesn't know
Is why he's getting no more dough.

The Engineer will rack his brain
To make production show a gain;
When he has schedules to beat,
Productive man-hours are his meat.
And yet there's doubt he'll ever see
An equal gain in salary.

The Engineer's a trusted lad
Who's always asked, when things go bad,
To analyze the problems faced
And get solutions out in haste.
He's trusted with most everything
Except what makes the cash drawer ring.

The Engineer stays on the beam—
"In Union there is strength," he'll scream.
With alloyed steel he proves it true
(Just try and break that stuff in two).
But still he always strips his gears
In proving it for Engineers.

J. EUGENE BLAIR in the Info-Gram.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INGLEWOOD, CALIFORNIA
TO ELECTRICAL DEALERS
THRUOUGHOUT
THE WEST
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INGLEWOOD, CALIFORNIA
Gentlemen:
Thank you for the cooperation and patience you have shown during these abnormal times. We have done our best to treat every one of you fairly.
There has been a great deal of bright talk about the wonderful new developments which await only the coming of Victory. Whether these innovations will make their appearance soon or late is pure guesswork. But there is one thing you can bank on--when new fixtures do appear, and they bear the Smoot-Holman mark, they will be good.
Sincerely,
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Offices in Principal Western Cities . . . Warehouse in San Francisco

ADEQUATE WIRING

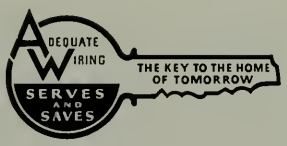
—The Key to The Home of Tomorrow

Today's acute housing problems are making people more than ever "home conscious" and millions are dreaming of the day when they will live in a home of their own — a home with electrical conveniences lacking in present living quarters.

When the war is over and they start building and buying homes, they are going to be far more critical of architectural plans than ever before.

Electrical service will be one of the prime items of consideration, with a demand for sufficient and conveniently placed electrical outlets and switches, and, above all, modern and satisfactory illumination.

Adequate wiring will provide the key to the home of tomorrow — the future way of living. Architects, responsible for the proper planning of wiring service, are keeping abreast of advances in the electrical industry now, and preparing for exacting post-war demands.



NORTHERN CALIFORNIA ELECTRICAL BUREAU

1355 Market Street

San Francisco

IN THE NEWS

between 1923 and 1938," says George T. Gerlinger, president of the National Lumber Manfacturers Association, who also predicted that shortly after the close of hostilities U. S. sawmills could probably increase production quickly because of expected availability of additional woods and mill workers and new logging equipment to replace the worn equipment now in use.

"The current shortage of lumber is due to lack of manpower rather than lack of trees and mills," said J. Philip Boyd, chief of the Lumber Division of the War Production Board.

Loss of more than 60,000 skilled woods and mill workers has been responsible for the decline in lumber production in the last two years.

SEES OPPORTUNITY FOR U. S. ENGINEERS

The Soviet Union will need engineering resources of the United States and the rest of the world in post-war reconstruction and "some method for a planned exchange or 'lend lease' of engineering skills would be of value to both countries," Simon Breines, New York architect, of the firm of Pomerance and Breines, told a meeting of the junior group of the Metropolitan Section of the American Society of Mechanical Engineers in New York recently.

In his address on "Postwar Engineering in the Soviet Union" Mr. Breines described some of his personal experiences in Russia and discussed unusual architectural and engineering requirements which will confront the Russians in their post-war engineering.

"When victory is won, the Soviet Union will be faced with an unprecedented construction task," Mr. Breines declared. "Whole cities will have to be re-planned and rebuilt. Housing will be required on a huge scale. Building and engineering projects of every description will be needed to round out the over-all type of planning for which the U.S.S.R. has become known."

PREFERS TO PRACTICE AS A DESIGNER

Reporting a recent meeting of the Illinois Society of Architects in Chicago, the Monthly Bulletin, published by the Society, listed a guest architect from the Pacific Coast, Kem Weber, as one of the speakers. The Bulletin's reporter goes on to say:

"This man's work (Kem Weber) is not confined to California but is found in various other states—a man of fine architectural training and experience though practicing, not as an architect, but as a 'designer.' Mr. Weber pointed out his friendly relations with the Southern California Chapter A.I.A. members. He said, further, that though he is a modernist in design as he assumed all architects in his presence were modernists, since they were building for use today, he did not disparage the work of architects, designers and engineers who have gone before."

MORE RECOGNITION FOR KUMP

National recognition for originality in schoolhouse design has again been conferred upon the E. J. Kump Company, San Francisco architects, this time by the Museum of Modern Art, New York, for two outstanding California public buildings—the Acalanes High School, Lafayette, Contra Costa County, and the Fresno City Hall, the latter building designed jointly by Mr. Kump and Mr. Franklin. Both of these buildings have been illustrated in detail in Architect and Engineer.

As an added honor the Kump Company has been invited to submit for exhibition at the Harvard University School of Architecture a series of school photographs and drawings and these exhibit models are now being worked up in the Kump office.

Recently the Forum showed the layout and general scheme for a public school system in Delano, California. A photo of the Kump working staff was opportune but unfortunately the names of the four executives were in every instance wrongly captioned, which only goes to prove that even the best edited publications are not infallible.

MORE HOUSES FOR WAR WORKERS

One of the latest war housing projects in the San Francisco Bay area was started the past month at San Lorenzo where the Greenwood Corporation expects to complete by January 1, 1945, some 1329 individual housing units to provide homes for 6,000 persons. The improvements will represent an investment of $7,000,000. The tract will include its own school, playgrounds and shopping center and will be available to war workers holding "V" cards issued by National Housing agencies. The houses are expected to sell for around $5,000 each.

The question is raised that while many of these war workers are at present in a position to make substantial monthly payments on these homes, will they be able to go on with these payments after the war when their earnings in some other branch of industry may not be as lucrative?

CREDIT RICHARD C. FARRELL

Editor,

Architect and Engineer:

In your May issue, on page thirty-three, in an article on post-war planning in South Gate, the statement is made that the City Hall and Public Library buildings were both designed by the firm of Allen and Lutzi.

I was the architect for the Public Library Building, as well as for the Headquarters Fire Station of that city and would appreciate it if you would make an appropriate correction in one of your forthcoming issues.

Sincerely, your subscriber,

RICHARD C. FARRELL, A.I.A.

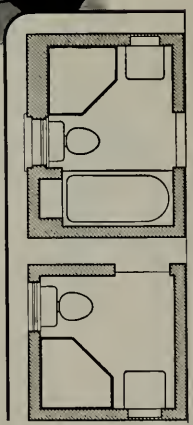
Alhambra, Calif.

FIAT Corner Shower

—FOR FUTURE
ECONOMICAL
BATHROOMS

FOR ECONOMY OF SPACE
FOR ECONOMY OF COST

Fiat suggests the corner shower as the ideal type for economical bathrooms in small homes, or as the second bath in medium priced homes. Fiat's postwar line of shower cabinets will include a low cost corner shower as shown on these bathroom layouts. Architects, builders and contractors can plan future building on the basis of a Fiat standard size, exceptional value corner shower, constructed so as to be built in as an integral part of the bathroom.



• These bathroom layouts show the space saving possibilities of the Fiat corner shower. Even the smallest bathrooms can accommodate this type of shower cabinet.

AVAILABLE NOW FOR IMMEDIATE DELIVERY

NO. 85. The best shower made under wartime material restrictions. Full size 36" x 36" x 78"
NO. 80. VOLUNTEER. Size—32" x 32" x 75"

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32 So. San Gabriel Blvd., Pasadena 8, Calif.

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IN THE NEWS

PHOTOS AND TEXT BY STURTEVANT!

Picture-taker Roger Sturtevant of San Francisco, who is a mighty good architectural photographer and who gets a mighty good price for his work, is the latest recruit to embrace the Fourth Estate. Temperamental Sturtevant is listed in the contents page of May "Pencil Points" as the author of "Two Small Houses in Berkeley, California," an article describing some of the interesting and somewhat unusual features of two dwellings designed by Architect F. J. McCarthy, one for Mrs. Grace Stearns Dilley and the other for Lieut. G. A. McCormack.

Sturtevant takes the FHA to task for refusing to insure a loan on the two houses and which were eventually financed by a private party. Sample paragraph:

"Rapport of client and architect was rudely jolted by FHA which earned itself a large minus mark by flatly refusing to insure a loan. The grounds were that the house was too small for the neighborhood. This refusal was despite the fact that the property is in a restricted district and the district committee had already approved the proposed structure. The refusal is still more inexplicable when it is realized that the property is within that area of Berkeley where small, inexpensive, easily maintained houses have for years been at a premium for teaching or student couples of the University.

"If Mrs. Dilley needed any further proof that flying in the face of FHA was a wise investment, many unsolicited offers to buy or rent constitute final evidence."

STATE BOARD OF ARCHITECTURAL EXAMINERS

After a careful survey of the functions of the California State Board of Architectural Examiners, it has been deemed expedient, with the post-war problem in mind, and in the interest of better service to the public and the profession, to reopen the branch offices of the Board in San Francisco and Los Angeles.

The Board has attempted to anticipate the various post-war activities contemplated in the construction industry, and the need for prompt assistance to be rendered to architects returning from the military forces.

Efficient service, under the former set-up, obviously could not be rendered. Branch offices are to be located at 209 State Building Annex, San Francisco, to be opened July 1, and 907 State Building, Los Angeles, already open.

The Board has arranged to have Mrs. Jeannette Dolsberry divide her time between the San Francisco and Los Angeles branch offices, so that her years of experience and kindly counsel will be available to all architects in the State.

Ben G. Silver, who formerly served as investigator, will continue in that capacity.

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HOWARD AND TENTH STREETS

SAN FRANCISCO, CALIFORNIA

SPOT NEWS

about WATROUS FLUSH VALVES from the Chicago Daily News Building

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Or see Sweet's Catalog File.

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UNITED STATES APPRAISERS STORES BUILDING, SAN FRANCISCO

W. E. REYNOLDS, LOUIS SIMON, GILBERT STANLEY UNDERWOOD

The new U. S. Appraisers Building in San Francisco enjoys the unique distinction of being the only skyscraper in the world to be erected since Pearl Harbor. An unbelievable 5500 untreated wood piles were driven to support the huge structure which occupies a considerable part of a city block of filled ground. Each pile is from 26 to 60 feet in length. There are 35,000 yards of structural concrete in the building, 5300 tons of structural steel, 5600 tons of reinforcing steel. Total weight of the building is approximately 175,000 tons. There are 11,600 electric outlets and a lighting load of 780,000 watts. The building is equipped with nine passenger and four 5-ton freight elevators.

U. S. APPRAISERS STORES BUILDING, SAN FRANCISCO

by MURRAY DAVIS

The seventeen story United States Appraisers Stores Building, San Francisco, is a multi-purpose structure, embracing the Appraisers Stores operations, Immigration and Naturalization Service, and a number of other Federal agencies whose functions are to a large degree independent of each other. Because of the peculiar demands of tenants, the building could not have been designed as a standard Federal office building.

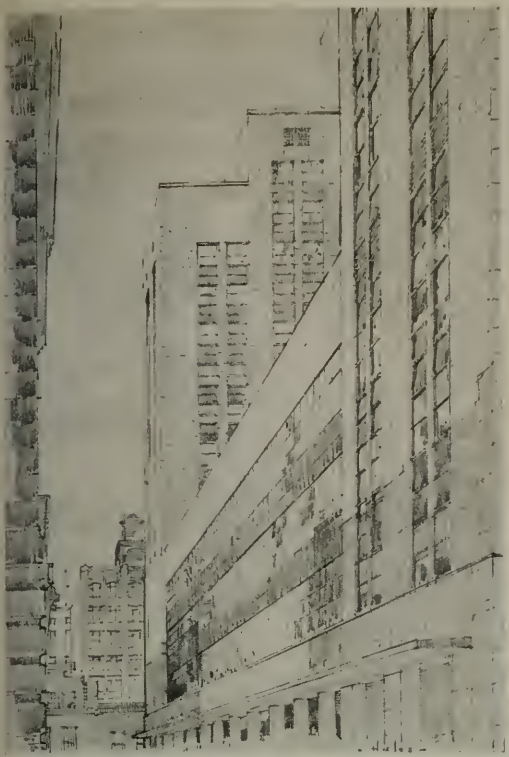
The new structure is separated from the Customs House by a spacious alley owned by the government, called Custom House Place. It was the architect's original intention to develop an affinity in design between the two buildings by echoing horizontal courses existent in the Customs House. Because of the architectural character of the Customs House the latter did not, in the opinion of the designers, fit into the modern conception of present-day architecture. Hence the effort to create a tie between the two was limited to the texture and coloring of the terra cotta facing which would echo the granite facing of the Customs House. Unfortunately, funds were not available for a granite facing.

The first four floors are allocated to the operation of the Appraisers Stores. The Appraisers office does exactly what its title implies, it appraises the value of incoming imports. Many of these are of high intrinsic value, such as jewels, drugs, antiques, et cetera. Merchandise is brought from the ship in bonded trucks. For the normal operation of ordinary merchandise, saw tooth loading platforms are provided in the alley between the Appraisers Building and the Customs House. Frequently trucks cannot discharge their complete load of merchandise by the end of the

AMERICAN EAGLE OVER ENTRANCE
Lombard & Ludwig, Architectural Sculptors

PRELIMINARY STUDY, U. S. APPRAISERS STORES BUILDING, SAN FRANCISCO
The three story building in the right foreground recently collapsed under its own weight. The structure was loaded down with merchandise.

SKETCH OF MAIN FLOOR ELEVATOR LOBBY



Pencil sketch, rear of Building from Jackson Street.

Photo, rear of Building from same viewpoint.

working day and "Locks" are provided for putting these trucks behind protective enclosures overnight. Merchandise is unloaded and trucked or carried on a monorail system directly into elevators which lift the merchandise to the examiners' floors. The merchandise is of a highly variable character and a preliminary separation must be made on the loading platform to permit each class of imports to go to its particular examining floor. On these examining floors are located the offices of the special examiners concerned with each class of merchandise. After examination, merchandise is sealed and returned to the delivery floor to be trucked directly to the importer. The vertical circulation for merchandise is supplied by four large fast-moving freight elevators. To expedite the transition of examiners and administrators from floor to floor, a special passenger elevator is a part of the mechanical equipment. Some of the special requirements of the appraisers operation are laboratories, dark rooms, special testing and weighing apparatus, a complete court room assem-

U. S. APPRAISERS BUILDING
San Francisco

Impressive view of facade looking straight up from street corner at Sansome and Jackson Streets.

There are 15 elevator lobbies like this in the new Appraisers Building.

Walls are finished with N. Clark & Sons ceramic veneer.

Roof garden where immigrant occupants of dormitories on 12th and 13th floors (see plans) may lounge on pleasant days and enjoy a 17-story view of city and bay.

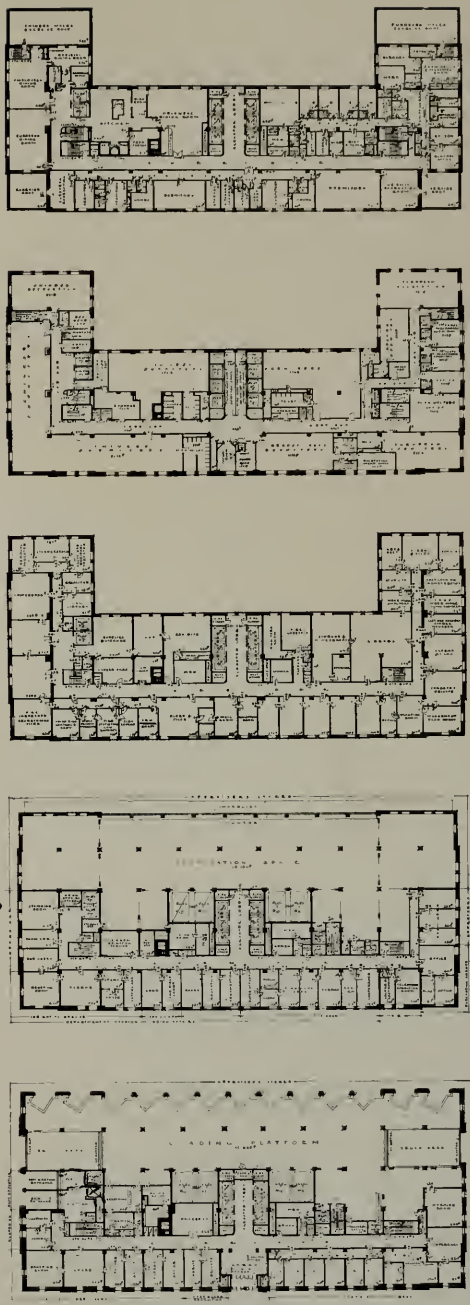
bly for trying contested decisions, one of the most extensive technical libraries in the country, and the special administrative offices peculiar to this Governmental agency.

The tenth, eleventh, twelfth, thirteenth, and sixteenth and seventeenth floors and all of the flat roof areas are occupied by the Bureau of Immigration and Naturalization. These floors comprise a complete "hotel" where residency may continue as long as a year or more. It is a hotel in which the guests are detained for the period necessary to clear their way into the United States. It will supply the functions which were discharged at Angel Island at an annual saving of a considerable sum in operating costs. Within this hotel is a complete hospital, hearing rooms, witness rooms, visiting rooms, rooms for the detention of special or suspect cases, a photographer's studio, observation rooms, and, of course, complete feeding and sleeping facilities for all classes of immigrants.

It is interesting to note that Public Buildings Administration has planned separate kitchens for different classes of immigrants to cater to their native habits of eating. Exercise areas, handball courts, and sun bathing on the flat roofs supply this necessary element of health care. Within the penthouse area of the roof is a complete laundry for the guests of this special "hotel."

Occupying the levels between the Appraisers Stores and the Immigration and Naturalization Service, are five floors of offices and operating rooms for many other Federal agencies. The fourteenth and fifteenth floors are also occupied by miscellaneous Federal agencies, particularly those which require laboratory operations located near the top of the building to provide forced draft ventilation for gas and acid fumes.

The space occupied by the Federal agencies other than Appraisers Stores and Immigration and Naturalization Service are each designed to fit the particular requirements of the occupants. These requirements include laboratories, testing rooms (B. Standards laboratory has a testing room with hatch through the roof to provide clearance space for particularly high merchandise or materials to be tested), vaults, hearing and lecture rooms, classrooms, deten-



PLANS (from top down)

Thirteenth and 12th floors—Immigration dormitories.

Sixth floor—Dept. of Agriculture and Forest Service.

Second and first floors—California Indian Agency, National Labor Relations, Coast Guard and Geodetic Survey.

tion cells, both receiving and sending radio equipment, administrative offices.

In addition to the truck service for the operation of the Appraisers Stores alone, there are two other entrances for motor vehicles from Jackson Street. One of these is a general service entrance to the building. The other is a special entrance for the use of locked vehicles transporting immigrants from the ship to the Immigration and Naturalization Service. Transport vehicles of this type are driven directly into a "lock," and the outer doors of the lock closed. The immigrants are then taken directly in their own elevator to the proper admitting floors of the Immigration and Naturalization Service.

The building is heated from a plant in the building, which also heats the Customs House Building. The Appraisers Stores Building is completely self-sustaining with its own shops, maintenance rooms, telephone equipment rooms, custodial rooms, et cetera. An incinerator and baling equipment are also provided within the building.

Architecturally, since it was decided early in the studies that it was impossible to create a successful architectural tie with the present Customs House, no effort was made to design in the Beaux-Arts spirit of the first building. Characteristic of the progressive architectural policy of the Public Buildings Administration which designed and constructed the structure, a natural, straightforward, simple expression of the building's function created the architectural "style." Administrative officials concerned in the design of the building were: W. E. Reynolds, Commissioner of Public Buildings; Louis Simon, Supervising Architect (now Special Consultant to Public Buildings Administration), and Gilbert Stanley Underwood.

Roofs used as recreational spaces for the Immigration Bureau, as well as floors of Examination Room of the Appraisers section, are paved with asphalt blocks.

Exterior materials also include steel double-hung sash, polished granite entrance, ceramic veneer grilles at the top of the building, and steel rolling doors for the "lock" and for the Immigration and Building Services entrances on Jackson Street.

BUILDERS HANDICAPPED BY WAR

Completion of the Appraisers' Building marks the end of a prolonged construction period, due severally to the war, lack of critical materials and labor shortage. For the general contractors, the Clinton Construction Company, the job proved a courageous effort and notwithstanding the many handicaps the company has carried to completion one of the finest buildings of its type in America. The structure stands as a monument to the perseverance, courage and resourcefulness of an outstanding organization, and its splendid corps of subcontractors.

In December, 1939, the Clinton Company submitted two alternate bids for the construction of the building: (1) a fourteen-story building; (2) an additional story and pent house. Pending an increase in the appropriation by Congress the Clinton bids were allowed to ride until the money was available. Then a contract was let to the company for $3,771,000, exclusive of the elevators which called for an additional expenditure of some $342,700.

Excavating and pile driving were soon under way and then the company's troubles began anew. The shipyards were starting up and the company began to lose its workmen. The manpower shortage became more acute as the demand for war workers increased. Then the Government stepped in with its restrictions on building materials. The manufacture of numerous articles needed in the building stopped. It was found necessary to substitute materials for products already specified and these substitutions had to meet government requirements. All this took time, delayed completion of the building.

It was not until last fall that the contractors received priorities on such remaining materials needed as plumbing supplies and heating equipment. When these goods finally come through and it looked like an early completion of the structure, the plastering contractor announced a manpower shortage. The country was scoured for plasterers with some results until it was discovered that there was no room in San Francisco to house the men. This handicap was finally met with the aid of the housing authority, and the plasterers got to work.

ENGINEERING FEATURES OF APPRAISERS BUILDING

Structural engineering features of the Appraisers Building comprise a wood pile foundation capped with a heavy, continuous reinforced concrete mat, supporting a seventeen-story structural steel skeleton frame encased in concrete monolithic with a solid concrete floor system, all acting as an earthquake-resistant unit.

A subsoil consisting of as much as sixty feet of miscellaneous fill and mud, under which were hard strata of clay and sand, necessitated the use of piles. As the cut-off was several feet below permanent ground-water line, untreated wood piles were adopted, designed for a value of 25 tons each. About 5500 piles were involved which, due to the general slope of the underlying strata, ranged from twenty-five to sixty feet in length, covering the entire site in such close proximity that the usual individual pile capping became a continuous mat six feet thick, which, heavily reinforced, provided an excellent foundation-tie, generally considered a necessity where seismic disturbances are prevalent.

With regard to floor loads, the superstructure was divided into two parts, the lower four floors, where devoted to Appraisers storage, being designed for a live load of 250 pounds per square foot, while the balance, to be used for general office purposes, were designed for a live load capacity of 80 pounds per square foot.

The structural steel skeleton was framed in general with columns spaced twenty-five feet on centers in each direction with floor beams located on the column center lines. The resulting twenty-five foot square floor panels were composed of solid concrete slabs 8″ or more thick, reinforced in two directions to support the live loads previously mentioned, plus the dead load of five inches of fill and finish. As the steel frame was entirely encased in concrete, it was unpainted in order to insure maximum bond value.

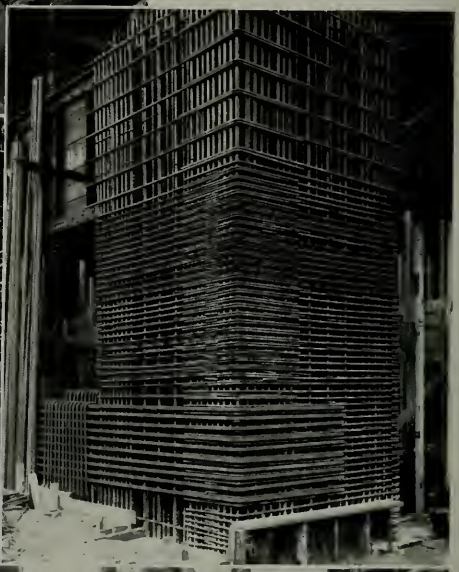
To provide reasonable earthquake resistance, a seismic factor of eight per cent of gravity was applied. In other words the entire building as a unit, including the foundations, was designed to resist a horizontal force of eight per cent of the dead load plus the live load in the case of the storage portion and eight per cent of the dead load plus half the live load in the non-storage portion, using working stresses under combined gravity and seismic loading 33 1/3 per cent greater than those used for gravity loads alone.

This resistance was provided by the reinforced concrete exterior walls bonded to act as a unit with the structural steel frame, together with certain interior bays provided with story-height solid reinforced concrete panel-walls where architectural requirements could allow such construction, or with story-height diagonal structural steel braced panels where openings in such bays were required. Each

Photo shows steel frame completed. Note girder construction at each floor, a feature of the earthquake design.

ENGINEERING FEATURES OF U. S. APPRAISERS BUILDING SAN FRANCISCO

Picture at left shows shoring method for retaining excavation. Approximately $30,000 worth of steel sheet piling was used.



ABOVE: Reinforcing of foundation slab.

RIGHT: Reinforcement at corner. Vertical reinforcing rods (1¼ inches) are continuous to fourth floor. Each bar is welded to permit continuity.

BELOW: Interior of corners.

floor acting as a horizontal girder, was designed to distribute the seismic loads to these walls and braced bays in proportion to their relative rigidities.

One earthquake-resistant provision, very noticeable during the skeleton frame erection, was the deep structural steel lattice spandrels framing around the entire building at each floor between the exterior columns. During construction operations these acted as erection struts and dead load supports, while on completion they provide most of the reinforcing for the concrete spandrels which, poured monolithically with the exterior wall piers, furnish the necessary resistance to seismic distortion.

As an additional precaution against possible seismic disturbances, the usual connection angles between beam-webs and the columns were supplemented with special split-beam flange connections designed to develop the moment-capacity of the columns at a unit stress of one-third of the allowed gravity working stress.

For the same reason, partitions and wall-furring were constructed of steel struts covered with plaster on metal lath instead of the usual terra cotta. Steel stairs were adopted, and the enclosing walls of both stair and elevator shafts were made of reinforced concrete.

Despite these very substantial anti-earthquake provisions, the unit costs of this building were not greatly in excess of those for approximately comparable structures provided with much less seismic resistance, while the additional security believed to be thus afforded, may be of incalculable value.

The structural design was developed under the direction of Principal Structural Engineer J. A. Cliff, with T. C. Brooks as Chief Structural Engineer.

BUILDING SITE MARKS HISTORICAL LANDMARK

by GEORGE P. HALES, Construction Engineer

In modern reportorial parlance, the site of the new Appraisers Building might be called a "beach head" if it appeared today as in 1849 when it formed the tide-lapped shore at the foot of Telegraph Hill. Located in the area first known as Yerba Buena, the "old town" of San Francisco, this section was the center of important civic activities; for here was the neighborhood of the Custom House, Post Office, town lock-up, and general meeting places. Narrow wharves were constructed as street extensions reaching out into the mud flats of the bay, and the continual process of filling the tidal areas between these wharves created new lands until gradually through the years the town spread into city proportions. As its commercial importance grew, new centers of civic interest and business activity increased and moved onto the permanence of present day urban development.

It is of interest to know that in the immediate environment of the Appraisers Building site, much of the romance and thrilling events occurred that made early San Francisco famous and known in every port in the world.

Reference books tell us that the tides rose

GEORGE P. HALES

and fell against the narrow row of piles marking the line of Sansome Street, and that in 1854 was erected the three-story cement-plastered Custom House and Post Office which stood until 1903. This structure occupied the eastern half of the block.

Appraisers and Immigration Building built in 1874 and which was razed in 1940 to make room for present structure.

In 1874 there commenced the construction of an Appraisers Building on the western half of the lot, costing $1,000,000—a fabulous sum in those days. Much has been written of the miracle construction of this then prominent building: its "80-foot piles—the seven foot thick rip-rapped concrete capping of the piles and the 3-foot thick 'solid' brick walls." The foregoing statement was correct as to the walls but somewhat exaggerated in facts and figures regarding the foundation, as no piles were used, and the seven-foot thick rip-rapped slab was but a four-foot thickness of ordinary concrete. This slab, floating on mud and subaqueous soil, served sufficiently until 1909, when a large brick sewer main was installed in Sansome Street, disturbing underground conditions to the extent that the south section of the foundation slab settled as much as one foot.

Old time photographs show to some degree how building operations were conducted in the "seventies" (see cut)—the hand mixing of concrete, the wheelbarrows trundling along, and the "boss men" observing and directing the work clothed in the "grand manner" (Prince Albert coats and stove-pipe hats).

The old Appraisers Building was designed by A. B. Mullet who, during his incumbency as Supervising Architect, had under his supervision the erection of such important structures as the State, War and Navy Building in Washington, D. C., the multi-columned New York and Boston post offices, and many other Federal structures.

The old Appraisers Building stood gallantly through the 1906 earthquake and survived the subsequent fire because of its staunch construction and the assistance of Navy tugs which pumped sea water to protect the building.

In 1906 the construction of the present Custom House was started on the eastern half of this governmental block. By peculiar circumstance, the first pile was driven the day preceding the earthquake and fire. Because of the catastrophe all grade and lot lines were completely obliterated, thus, in part, delaying progress of the building, which was eventually completed five years later.

Photo shows start of construction of old Appraisers Building (1874). Note hand concrete mixers, wheelbarrows and foremen wearing stove-pipe hats to distinguish their official station.

Such is the short history of the government site at Sansome and Battery. Eight years were consumed in the erection of the old Appraisers Building, about six years for the Custom House, and now four years for the new Appraisers Building. All were constructed during time of catastrophe and strife, yet eventually became indispensable units of governmental activity, so important to San Francisco.

APPRAISERS BUILDING FACED WITH CERAMIC VENEER

By FREDERICK CALVIN DAVIS

CERAMIC VENEER manufactured by Gladding, McBean & Co. and used as the facing on the United States Appraisers Building in San Francisco, is a modernization of hand made terra cotta. Years of research made possible the production of this truly modern material, the possibilities of which had not been fully exploited when building was restricted by the war. Its adaptability to modern design is convincingly demonstrated on this building, and its beauty of appearance and facility of installation assure its preeminence in the field of facing materials for post-war construction. The method of installation is pictorially described in the following photographs.

U. S. APPRAISERS BUILDING

San Francisco

Public Building Administration, W. E. Reynolds, Commissioner.

Gilbert Stanley Underwood, Consulting Architect.

The two photographs on this page (Figures 2 and 3) show Ceramic Veneer in process of installation at the twelfth story of the Appraisers Building.

The entire structure was so faced from the first story to the Ceramic Veneer coping at the top of the building. Pieces varied in size to a maximum of 47 inches in length and to a maximum of 30 inches in height.

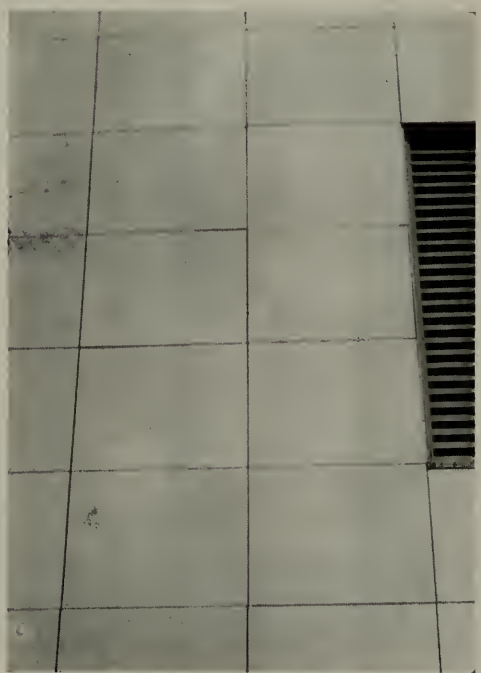
On all concrete walls faced with Ceramic Veneer, six-inch wide continuous horizontal recesses 1 inch deep were located on 12-inch vertical centers above openings, and on 24-inch vertical centers elsewhere, to take the vertical sheer.

Ceramic Veneer was anchored to the vertical rods which were held approximately one inch from the wall by means of a tail on the loop dowel anchors previously imbedded in the concrete.

In above photograph, note that the wash surface at vertical joints is cut out to provide grout holes which enable the vertical joints to be grouted solid, covering the anchors with mortar. The water-tight vertical joints are finished with a covering of Ceramic Veneer filler pieces.

Picture at left illustrates treatment of coping before being set. Several days before installation, each piece was turned hollow side up and filled solid with a very wet, lean mix of grout composed of:

Approved Portland Cement..... 1 volume
Clean sharp sand and top gravel..10 volumes



Photograph at right illustrates the jointing of Ceramic Veneer Ashlar. Ceramic Veneer meets architectural requirements of scale and true surfaces.

The mortar used in the quarter-inch horizontal and vertical joints **(but not elsewhere)** for setting and pointing the Ceramic Veneer was mixed as follows:

Approved Portland Cement	1 cu. ft.
High Calcium Quick Lime Putty, slacked, screened, and aged at least 20 days, and containing not more than 1½% of magnesium oxide	¼ cu. ft.
Clean sharp siliceous fine sand	3 cu. ft.
Ammonium Stearate Paste	1 quart

For grouting in back of the Ashlar, the following grout mix was used:

Approved Portland Cement	1 volume
Clean sharp sand and top gravel well graded from fine to coarse	5½ volumes

Daily operations commenced by drenching with water all concrete walls which were to be faced that day with Ceramic Veneer. Immediately before being hoisted to the scaffold, each piece of Ceramic Veneer was saturated with water on unglazed surfaces. The joint edges were again saturated with water immediately before being anchored into place. Prior to pouring the grout, the back of each piece of Ceramic Veneer and the face of the concrete wall were once more saturated with water. Failure to follow this formula prior to pouring the group, would result in a loss of adhesion due to the absorption of moisture from the grout.

Grout was successfully poured six to ten inches high and allowed to set while grouting was continued around the remainder of the building. This method was economical in that it made it unnecessary to use temporary tie wires to hold the Ashlar in place while pouring was in process.

Many architects and engineers visited the building to view the installation of the Ceramic Veneer. For those who did not have this opportunity, the photographs should enable them to realize the strides which have been made in the development of this modern material.

CLOSE UP OF SANSOME STREET FACADE
U. S. APPRAISERS BUILDING
SAN FRANCISCO

Photo shows jointing of Ceramic Veneer at first and second stories. Base course is granite.

WHAT ARE ARCHITECTURAL STUDENTS LEARNING?

by FREDERICK V. MURPHY, F.A.I.A.

Learning is discipline. At the moment, students who would otherwise be engrossed in peaceful studies in the college schools of architecture, are learning to fly, to march and to destroy with mathematical precision. We hope the discipline of the school will soon prevail. It may develop that some of the training of mind and body will prove beneficial in the education of students ultimately destined to practice architecture. In the interim, one may analyze the interrelationships between the school and the practice of the profession.

The schools have kept constantly aware of their responsibilities, and have adjusted their curricula from time to time to meet future professional requirements. There has existed a healthy difference of opinion as to teaching methods, length of course and other details of more or less importance. In general, the schools have made a sincere and concerted effort to anticipate the problems that would arise in a professional career, and to train the intelligence to be able to interpret them wisely. Inasmuch as the profession itself was constantly changing, for better or for worse, the schools have had a real task in coordinating the activities of the student mind with the routine of the architect mind. From hypothetical suppositions the schools were endeavoring to prepare for a reality that contained certain intangible elements. On the whole the schools were fairly successful.

* * *

As a student of architecture, I was taught composition, proportion and scale. In fact, the Vignola, the handmaiden of design in those days, was said to have been almost infallible as a guide. One was taught to draw, cast shadows and do perspective. Architectural history was seriously considered. Travel in foreign countries and the making of measured drawings were encouraged for all, and demanded of the recipient of the traveling scholarship. The reflex of all these adventures was supposed to inculcate a capacity to design. It seems to have succeeded, and tribute should be paid to the method and to its exponents.

* * *

What is done about this matter of design today? We still have the same array of geometrical solids, dating from the time of Euclid, and much the same materials of construction, with some few exceptions, as were employed by the Romans. Speaking only as a representative of Catholic University, we are a bit nonplussed by the turn of things architectural. One has the feeling that the bottom of what was solid in design has dropped out. But there is no real reason for pessimism on this score. We must learn to judge and then to teach by the new standards. Our language and literature, our music and our national outlook have changed. Why should architecture not admit of change or why fail to welcome it? The architectural vernacular of 1920-25 is inappropriate today to express our architectural emotions. We must adjust ourselves to the new problems and confront them with confidence that the same capacities at least remain with us. Even from the new we may abstract what is best, and from the tried we may guide the student mind toward the goal of "fanning his own flame" of creative ability.

Drawing, rendering and the study of architectural history are still given in the college of architecture in much the same manner as they

have always been given. Construction courses likewise occupy an important position. As they are based upon physics, mathematics and mechanics, they belong strictly to the field of science. We doubtless laid too much stress upon "presentation" in the past, but now cultivate the expression of the verities, cold as they may seem.

The factor of skill varies greatly among students. Some, although otherwise immature, possess it to a high degree. This has led us at times to mistake it for ability to design. New skills are quickly acquired by some students, and are inspired by professional work published in the architectural periodicals. Planning, however, which is mental rather than manual, begins to be better understood and the vocabularies of facades and of ornament are meagre. All of this, of course, mirrors the production of the day.

We still carry on with stylistic studies, which perhaps in the past led us far afield, but which, in the estimation of a conservative, tend to develop a sense of form, solid and void, color, texture and the proper placement of ornament. Architectural pedagogy of yesterday was not without merit. Even correctly considered studies of poche brought attention to the three dimensions, and unless done strictly per se, was a valuable exercise in architectural composition.

* * *

We have always related construction as closely as possible to design, although I have never held the opinion that working drawings should be stressed very greatly in college training. Of course the gap between graduation and the first job in the office is something of a problem. Registration is exacting, and should be even more so, but an equilibrium of studies must be retained. Many of the subjects in the curriculum are not of apparent, immediate value to the student, and he shuns them or does them just well enough to pass. At Catholic University we adhere to the opinion that the fundamentals of a classical education offer the best foundation upon which to build. It should precede purely technical training.

From time to time the esprit de corps of any school may vary. Some students find real enjoyment in their work—even tend to overwork. There are those who accept the following of any program of studies as drudgery. Outside influences always depress or stimulate as the times are good or bad. At the present, with the world at war, discouragement may easily exist.

Our interests as a nation have become broader, and the profession regards this as most fortuitous. The students are aware of this fact and feel that they will fit into the society of the future in many more capacities than ever before. They are most conscious of the increasingly important position of the engineer. They express desires to understand engineering subjects. The study of economics has been proportionately popular.

Students are very receptive to suggestions, although some seek positive opinion and fail to search for the best solutions of their problems. We need free discussions at all times, from various viewpoints. Group work in correlated problems in architecture and sculpture seems to interest them. Landscape possibilities, industrial design, town and city planning, housing, zoning—all have entered the curriculum, and we plan better adjustments to them. The value of law school elective courses has already been felt, and a new school of speech and drama has given the student body an important social outlet.

Courage is necessary at this time, when we are at a crossroads in government, in sociological and educational endeavors. The artist and the architect are not to become extinct. Intellectual achievement will go on, and there is every reason to believe that better things are in store for the future. Though many of us at the moment may suffer from a temporary "black-out," there can be no serious pessimism in a nation where a student is conscious of his own dignity as a person, one moment carrying a gun to defend it and the next holding a pencil and a T-square to preserve it. May we speed the day of the latter.—Journal of the A.I.A.

TOWARD URBAN REDEVELOPMENT*

by WILLIAM WILSON WURSTER, A.I.A.

After twenty years of practice, ending with 5000 war houses, it seemed right to pause, take stock and see how best to fit into the war and post-war work. The decision was to spend a year in research on urbanism and planning. This is difficult to do when in familiar surroundings, so I decided to return to study within the framework of a university. At Harvard there is a School of Regional Planning allied with the Architectural School and the Littauer School of Public Administration and it is there I went for the year. This meant work under John Gaus in Regional Planning, Alvin Hansen in Fiscal Policy, Martin Wagner (former City Planner of Berlin) for City Planning, and Dean Joseph Hudnut in Civic Design.

At Massachusetts Institute of Technology, I had a term with Frederick Adams in the direct process of City Planning. For one term I taught in the Architectural School at Yale as Coordinator of Design.

Added to this was a month of bicycle travel in New England when we did over 500 miles. It is interesting to compare the elements of the New England countryside with our own. **There** all is neat and tidy underfoot — you are tempted to fling yourself on the ground on the lush green grass. The distance is always hazy. Places of interest close together. **Here** all is magnificent distance with dry harshness and untidiness close at hand. Things are much too far apart to choose a bicycle as a means of seeing the sights. One of the best ways of bringing home the closeness of things there is to compare the number of major metropolitan areas between Boston and Washington — a distance not far greater than our San Francisco-Los Angeles stretch. Think of Boston, Providence, New Haven, New York, Philadelphia, Wilmington, Baltimore and Washington. On the west coast the two areas have some 5 million people while on the east coast the eight areas have over 20 million people.

Let me list various areas with characteristics as they come to mind, for they will have something to tell us, I am sure.

BOSTON represents a metropolitan area of 2.5 million people. There are 43 towns as immediate satellites. This area represents the most advanced state of the city problem, for, while we find all manner of early park and other metropolitan approaches, the wealthy and middle class have moved out of the central city, leaving the tax burdens to be carried by the poor and slums and blighted areas a generation or two older than ours. Already their taxes, computed on a comparative basis, are **double** ours in San Francisco. As an area they are now facing a problem which will be ours in 40 years—a shrinking population. This certainly brings no enthusiasm and it is hard to avoid the feeling that the rats are coming in and taking over. The Commonwealth of Massachusetts, years ago as parent of its cities, created a Metropolitan District Commission to deal with the complicated common problems which beset the many political units. Unfortunately there is no compulsory participation. This means there are communities which only participate in regard to fire protection—or perhaps water supply, etc. Thus, the problem is only partially solved. Boston is conducting a competition at this very time, with prizes amounting to $5,000, for the best program for a master plan for the development of Metropolitan Boston. I quote from one of their morning newspapers, the "Herald," and if you will substitute familiar names it might be appearing in one of our own newspapers. "Boston's essential difficulty is that she is completely disintegrated. The corporate limits of the city itself have no basis except in history. What happens to our commerce, industry, transportation, recreation and the rest should be of as much concern of Wakefield or Walpole as of State Street. There are 2.5 million people with a common interest, not merely the 800,000 in the city

* Part of a lecture sponsored by the San Francisco Planning and Housing Association and delivered at the San Francisco Museum of Art, May 31, 1944.

itself. Attempts at re-integration have had but slight success . . . and we find the only effective measures have been our experiments in metropolitan administration under our state supervision — water, sewerage, highways, parks, and transit. But the process has come to a halt. There has been no progress toward extending regional government for many years."

NEW YORK. Here, too, they are facing a shrinking population although they hate and refuse to acknowledge it. An official municipal committee was asked to make a report on industry and population which should find the facts. The result was the finding by the realistic Haynes committee that there would be a diminishing, so it has been quietly sidetracked. Too bad, for being an ostrich and hiding your head in the sand never has solved a problem. We find two positive attempts at metropolitan thinking. The first is a strong legal one with power, the Port of New York Authority, which ties together all of the port facilities of the area. This is true even though they come in different states as well as cities—the former a type of added complication which this area does not have. The second organization is the Regional Association which is entirely private and without legal power. It is educational and promotional. You have heard often of the organization, for it was backed by the Sage Foundation and spent over a million dollars on a report and publications during the 1920-1930 period. Their great mistake, as I recall, was the assumption that New York would have something like 20 million people by now.

PHILADELPHIA. We believe in the democratic privilege of living where we wish—on the other hand there should be a systematic process by which a person may choose to live outside the political boundary of the central area, earn his living within the area, yet meet his share of the tax obligation. Philadelphia has a new occupation tax which attempts to do just this. It is worthy of our study, for San Francisco has a like problem which may well be greater in proportion to our size than other places. Alas! this very solution acknowledges the lack of power which might result from a metropolitan area control and avoid such a patchworking method as this.

CHICAGO is to me an example of miles and miles of greyness and mediocrity. Never have I been so impressed with what can be done to ruin a place for living. It is not so much congestion, for there are gaps where structures have been torn down. We came on all this in our search for the new building designed by Mies Van der Rohe for the Illinois Tech, which is located in this part of the town where the casual traveler never goes. Rather, lacking hills for variety, they have not evolved a substitute by way of neighborhood planning which might give point and zest to each area. True, as with our Victorian houses, there is the great false front along the Lake—but behind it! And this is the type of thing all cities are headed for unless we set up some type of positive land-use control. Call it land budgeting, if you will. It is more than zoning, which describes more what **can't** be done rather than what **shall** be done.

Don't let property slip from public ownership —keep open spaces even though they be only sand lots. Think of the Presidio with its rough planting as one of our breathing spaces and beauty spots. See that land which the government has taken in the war emergency is kept. We look down on just such a railroad siding in North Beach. **Don't** let the old cemeteries be divided up by speculative interests. If you are afraid the cost is too great and the tax rate will go up, then perhaps it is the base of the tax structure which needs changing, but don't let it distort land-use. The one thing which I can promise you is that you will have a declining central population and an increasing tax if you do not have open land!

Here I am ahead of my story for I want to talk directly of San Francisco in direct terms and not through any other city. Let me attempt to define the uniqueness of this city, that we might grasp and hold what we have: Up to now our physical aspect has saved us from many of the difficulties, but we cannot count on this limitlessly without making an effort to understand it, and so prevent what has happened to other cities.

First we have the PHYSICAL side. Our great harbor is a magnificent green belt. How fortunate it couldn't be divided up and filled with a mass of industry and housing, for then we should have lost the feeling of space, which is our greatest heritage. And it is this very space which cities are now buying back at enormous expense. Our city is really a concentrated core —with real space before you plunge into the suburbs of the East Bay, the hills of Marin County, and the cities on the Peninsula. Let us hold tight to the hills and open space between us and the Peninsula and evolve some way to keep them as they are. Possibly so-called practical people will doubt this, but let them re-examine their thinking before they speak out too emphatically. With the publishing of the new County of London plan, there

comes an awareness of the need for keeping the entity of villages and small cities, with real space between them so they are not merged in one great blurred mass. In the case of London they propose to buy the space which should never have been lost. Be careful that space—open land—is kept between Belmont and San Carlos, Orinda and Lafayette. Prevent in the future, such merging as that of Oakland and Berkeley, or San Leandro and Oakland.

Bless the hills of San Francisco that give our gigantic grandstand which allows so many dwellings to have a share of the open space of the bay of which I have been speaking. This very fact has brought advantage to certain sites enough to cause some urban redevelopment in a modest way. And I am grateful for the gridiron plan, which is so often cursed, for it gives us the bay and the distance at the end of every hilly street, rather than the soft contour streets of a Piedmont, where there is often a structure between you and the view. I like the orderly piling up of the masses of the buildings which reminds one of the Riviera cities. I state all of this here, for many people who love San Francisco do not realize this is part of its uniqueness, and all too often one hears the idea of redevelopment linked up with a changed street pattern which shall attempt to capture the charm of the cow-path pattern of Boston. Of course we must think of traffic arteries, of quiet streets and safety, and of connected open spaces. We have more of a start than many realize, with the tops and spurs of our hills, as natural cul-de-sacs.

We are lucky in having a work-a-day climate —too cold for lolling out of doors but wonderful for those of us who must work productively each day. There is no need to pretend this is not true—let us embrace it as a virtue and seek certain recreation in the warmer belts nearby. No other part of the world, to my knowledge, offers such immediate and easy choice of contrasts.

This cool, windy climate makes row houses such a really good solution—small spaces between freestanding houses on less than sixty-foot lots have never been worth a great deal, even in warm places—here such space is just a draughty slot. No, it is not the twenty-five-foot-wide row house which should be the target of criticism as much as the lack of neighborhood and traffic planning.

For the ECONOMIC side we should look at the map and study the locations of the four great centers on the west coast—Los Angeles, San Francisco, Portland, and Seattle. Our old enemy, the 7000-foot-high pass at the Donner Summit, may be diminished in its critical effect in the coming air traffic days. We must not overlook the fact that the great circle advantage lies with our northern neighbors and we will have to work at some offset for that. Perhaps our great central valley is the offset, with its rich crops from irrigated areas, and the long, dry summers for growing. A metropolitan area could lend a helping hand to this development, for there could be a broader pride, free of petty competition, when all the cities are joined toward a common goal. This means a constant examination into many things, from irrigation water problems, cheap power rates and freight rates, to the transportation systems which will permit the movement of produce and people efficiently. And add to all this the coming trade in the Pacific Basin which can be brought here if this area presents a united pull.

On the SOCIAL side we have been a pioneer group—willing to take a chance, and I hope we may retain this aspect, and not crystallize with limited horizons. We have been a melting pot with a real mixing of nations. When we talk of zoning, let us not think in terms of racial discrimination—instead let us shed such discrimination as the years have brought us. I am glad this place has an expanding economy, for it will be an easier place in which to accomplish tolerance than the places which are shrinking. A pioneer place is always nearer to its own gambling history and not so likely to set up narrow limits for minority races. Let's hold fast to such freedom as we have, and better it, if possible.

So much for impressions.

(Editor's Note—Mr. Wurster's lecture will be concluded in the July issue of Architect and Engineer.)

This American is not expected to buy an extra War Bond in the 5TH WAR LOAN

But we are.

For each of us here at home, the job now is to buy extra Bonds—100, 200, even 500 dollars worth if possible.

Many of us can do much more than we ever have before.

When the Victory Volunteer comes to you and asks you to buy extra Bonds, think how much you'd give to have this War over and done.

Then remember that you're not *giving* anything. You're simply *lending* money—putting it in the best investment in the world.

5TH WAR LOAN

Let's Go . . . for the Knockout Blow!

ARCHITECT AND ENGINEER

This is an official U. S. Treasury advertisement—prepared under auspices of Treasury Department and War Advertising Council

FOR BETTER INDUSTRIAL LIGHTING

Design of industrial plants which has overshadowed all other types of building, with the exception of war housing, since Pearl Harbor, promises to continue not only for the duration, but for some time after the boys are through fighting. Besides the need of new structures, such as factories and warehouses, there will be a great deal of reconversion work which will call for replacements of old equipment, new painting and improved operating conditions to insure maximum efficiency. One of these efficiency aids will be better lighting, proved so essential to fast and accurate production. While it may not always be possible to completely replace existing lighting facilities, the exercise of proper care of used lighting equipment should not be too lightly considered.

A procedure that may be safely followed by consultant engineers to insure optimum lighting efficiency in the average industrial plant, is outlined here by John J. Neidhart, lighting engineer expert for Westinghouse, who lists the basic steps necessary to provide and maintain the best possible illumination of new or existing installations:

The efficiency of any given lighting installation is dependent upon two things: (1) the painting of all surrounding surfaces which might absorb some of the light, and (2) the maintenance of the lighting equipment.

High reflection factor, matte or semi-matte surfaces, are essential for maximum utilization and diffusion of the light. Ceilings, walls, trusses, columns and machinery may absorb a considerable percentage of the light if their surfaces are not painted a light color; causing most of the light striking the surface to be reflected, increasing the amount of light reaching the working plans. Selection of the paint to be used should be governed by the following requisites:

Reflectivity—High reflection factors lead to high efficiencies, and it is, therefore, desirable to paint all ceilings, walls, trusses and columns with a paint having a reflectivity of 75 per cent or better except for a darker wainscot below the working plane. Although it is not possible to maintain this high reflection factor for an extended period of time in factory areas having a dirty or oily atmosphere, the reflectivity will at all times be higher than if it had been low initially. The reflectivity can always be restored to its initial value, of course, by repainting or by washing.

Finish—Glossy finishes should be avoided, for the resulting specular reflections of the light sources will cause annoying glare. A matte finish is most desirable in clean areas since it will provide for greatest diffusion of the light and will completely eliminate specular reflections. A semi-matte or egg shell finish is usually more satisfactory, since it has a smoother surface which does not collect dirt as easily as does the relatively rough surface of a matte finish.

Durability—In every factory, the reflectivity and appearance of the paint may eventually be impaired by dust and dirt collection. It is, therefore, advisable to select a paint which is moisture resistant and levels out to a smooth continuous film which is resistant to soiling and may be washed frequently with soap and water. If the painted surfaces are exposed to vapors and gases, special fume and moisture-resisting paint should be employed.

Visibility and lighting efficiency are greatly enhanced by the white ceiling and columns in the machine shop shown here.

Removable reflectors make it possible for the maintenance man to remove a dirty reflector and replace it with a clean one that is carried as an extra.

Color—In general, all surfaces except the machinery should be painted white since white has a higher reflectivity than any color and helps create a bright, cheerful atmosphere. White paints are often tinted slightly with blues or yellows, but tests have indicated that the natural or warm whites depreciate less with age than do the blued whites. Slightly blued whites are often the most desirable, however, when used with incandescent of 3500° white fluorescent lamps since the blue tint will tend to be color-corrective and provide a more balanced, non-chromatic white light. The machinery may be painted a medium gray, but tests have shown that visibility and safety may be enhanced by painting the working area of the machine a lighter, contrasting color such as buff or cream.

ADVANTAGES OF PROPER PAINTING

High reflection factor surfaces will increase illumination and also provide for better diffusion of the light, minimize shadows, reduce harsh shadows between the light source and the surroundings, improve seeing comfort and

High reflection factor, white surfaces help diffuse the light and improve the efficiency of the fluorescent installation in this manufacturing and repair shop.

prevent the illumination from dropping off near the walls or around large columns.

Before and after checks on the illumination in various factories have proved that the illumination may be increased 100 per cent or more by proper painting alone. For example, an Ohio manufacturer found that the illumination in his factory was increased from 5 footcandles to 15 footcandles by merely repainting all interior surfaces to prevent light absorption. Benefits resulting from such an increase in illumination become even more significant when one considers that it does not include the more intangible benefits of better diffusion and improved seeing comfort.

CARE OF LIGHTING INSTALLATIONS

Maintenance departments of all factories should devote special attention to the care of lighting installations. Planned maintenance will assure peak efficiency and prolong the useful life of the lighting equipment. The best 50 footcandle installation is no better than a comparable 20 footcandle installation if burned out

Lowering a luminaire to the floor where it may be cleaned more conveniently is quickly accomplished with the aid of an automatic disconnecting hanger in this high bay area.

lamps are not replaced and the reflectors are not kept clean, reducing illumination to a fraction of its designed **maintained** value.

A well-planned maintenance program divides itself into two phases: (1) the **cleaning** of the lighting equipment and reflecting surfaces to remove dust and dirt, and (2) the **relamping** of the luminaires immediately after lamp burnouts or on a systematic lamp replacement plan.

Cleaning — The permissible time between cleanings is peculiar to each installation since the rate of decrease in light output varies with the type of lighting equipment and the amount of dust and dirt in the air. Dust tight covers will simplify the maintenance problem considerably in extremely dirty atmospheres such as are prevalent in foundries. The best method of establishing a cleaning schedule for any installation is to make periodic checks of the illumination with a light meter. The length of time required for the illumination to drop to approximately two-thirds of its initial value may be arbitrarily taken as a satisfactory cleaning period in most cases. This period may be as short as 3 or 4 weeks in extremely dirty locations, but it will usually be from 2 to 6 months under average conditions.

Relamping—Rated life of a lamp is the average life of a large number of lamps and is not indicative of the life of any one lamp. Many lamps will have a much shorter life than the rated hours, but an equal number will burn longer than the rated hours. The lamps will, therefore, burn out at sporadic intervals with the maximum number of burnouts occurring at or near multiples of the rated life. Burned out lamps may either be replaced as burnouts occur or on a group replacement plan.

Maintenance Methods—In low bay areas, lighting equipment can usually be maintained from step ladders, but higher bays present more of a problem. In some plants, the fixtures can be cleaned and relamped from a traveling crane, but it is frequently undesirable to tie the crane up for this work. Movable telescoping platform lifts are quite satisfactory in areas where the presence of machinery does not interfere with their use. One of the most convenient means of access to the luminaires is from catwalks, but the installation cost is high and they are feasible only on special applications where all of the fixtures may be mounted on a few catwalks. Automatic disconnecting hangers which permit the luminaires to be lowered to the floor by a chain or rope offer another convenient means of facilitating maintenance. A monorail system provides another quick and easy method of servicing the lighting equipment from traveling platforms or cars and is frequently used for large fluorescent installations.

Disconnecting type hangers or reflectors that are easily removable usually simplify the maintenance problem considerably, since the reflectors may be washed by one man on the floor or platform while a fellow worker removes the dirty reflectors from the luminaires and replaces them with clean ones.

RESULTS OF PROPER MAINTENANCE

The importance of regular servicing of lighting equipment is strikingly illustrated by the results of tests conducted to determine the actual loss in illumination due to dirt collection on lamps and luminaires. In one case, a porcelain-enameled reflector for a fluorescent luminaire was removed from an average factory area and tested for light output in a photometric laboratory. Light output was checked during various stages of cleaning and results were as follows:

(1) Dirty reflector and dirty lamps—
22.8 per cent decrease in light output
(2) Dirty reflector and clean lamps—
18.1 per cent decrease in light output
(3) Reflector wiped with dry cloth—
6.2 per cent decrease in light output
(4) Reflector and lamps washed—
0 per cent decrease in light output.

This reflector had not been serviced for approximately 6 months; if the period had been longer, the amount of light being wasted would have been even larger.

PRODUCERS' COUNCIL PAGE

Northern California Chapter
The National Organization of Manufacturers of Quality Building Materials and Equipment
Affiliated with the AMERICAN INSTITUTE OF ARCHITECTS

PERRY M. "PAT" OLSEN

We swing our spotlight this month on a Charter Member of the Chapter, Pat Olsen, who served as Publicity Committee Chairman in 1939, is still an active member today.

And have we got a "character." The "M" stands for "Maranius" but a Chicago Alderman changed his name to "Pat." Red-headed Pat was born in the Windy City on Friday the 13th back in 1886. His hobby is his family, three children and three grandchildren. An air-minded family it is with a son Perry A. a bomber pilot and a daughter in the Air Force Fighter Command Headquarters. Time was when Pat was able to make an annual "business trip" by air to Honolulu but war-bound he now confines his vacation to his summer place in the Santa Cruz Mountains. Pat also likes golf, pinochle and probably least, as well as last, victory gardening.

Pat is active in business and fraternal organizations, is Western Manager for the Sisalkraft Co., a position he has ably filled since 1929.

Solid Pat has been "married to the same wife" for thirty-two years and they have made their home for the past fifteen years at 1211 Sunnyhills Road, in Oakland.

Flash—President Horace Pickett is making a satisfactory recovery from a delicate and serious operation. Fellow Council members were pulling for him every minute of his ordeal keeping in touch with developments through daily bulletins issued by Vice President George Quamby who has been carrying on in his stead.

Take it easy, old fellow, and we'll be looking forward to seeing you again in good time.

Chapter Plans call for no let-up during the summer with a full schedule of work ahead.

July Meeting will be devoted to a Chapter discussion of the new Bidding Practice for Building Materials in place of the old "Or Equal" clause. Find out what your company's attitude is on this so that you can come prepared to take part in the discussion, crystallize the Chapter's official position and put us in a position to present it to the architects and engineers.

Modular Planning is moving forward and holds the greatest single promise to effect economies in postwar construction. Generally anticipated increased costs of building make this development more important than ever.

Harry Lemos, bust that "ceiling" of sixty at our June meeting. Congratulations on your persistent and successful efforts, Harry.

Certain-teed Products Co. joins the Council and Herbert A. Bennett, Pacific Coast District Manager, has already indicated his desire to join in the Chapter's activities.

A Free Meal is offered the Chapter having the highest percentage of paid members against the potential membership in their territory in an Annual Chapter Membership Award to be made at a dinner tendered by the national Council with the President and the Managing Director present. Let's get busy.

An Enviable War Record has been piled up by Council members. Twenty-three have won Army-Navy "E" awards at 53 plants. 56.3% of the membership is working on war goods, 9% are 100% on war production, 36 companies are making both war goods and prewar lines, others are entirely on prewar lines but largely for essential use. Some of these have gotten the "E."

That the industry had time to produce both materials for the unprecedented military construction program and still manufacture direct war goods is nothing short of remarkable and a record of which we may all be proud.

The Time Is Here, says Russell G. Creviston, Chairman of the Council's Postwar and Reconversion Committee, for action. Council postwar planning activities have been concluded.

Have you done anything to—

ARCHITECTS ON THE MOVE

William Herbert has moved from 426 29th Street, Oakland, to 1033 Longwood Ave., Los Angeles.

William Wilson Wurster from 63 Sparks Street, Cambridge, Mass., to 402 Jackson Street, San Francisco.

Gates W. Burrows' address, formerly 303 West Ninth Street, Long Beach, is now Post Office Box 404, Montebello, California.

John M. Evans has moved from 5856 Chabot Court, Oakland, to 1059 Norwood Ave., same city.

Ray J. Kieffer has moved from 3801 Beverly Boulevard, Los Angeles, to 2212 Griffin Avenue, same city.

C. E. Perry to 2096 24th Avenue, San Francisco.

Philip S. Buckingham from 818 Farris Avenue, Fresno, to 1922 Clinton Avenue, same city.

Albert J. Evers from 525 Market Street, San Francisco, to 8 Seaview Terrace, same city.

Robert E. Riggs from 7314 Hotchkiss, El Cerrito, to 568 Fairmount Avenue, Oakland.

Laurel Boyd Baker from 215 South Hamel Drive, Beverly Hills, to 1836 Crestmont Court, Glendale.

FOOD DEHYDRATION BOOKLET

"Food Dehydration"—a 20-page illustrated booklet recently published by the National Fire Protection Association, is intended for operators of food dehydration plants, fire protection, mechanical and air conditioning engineers, container manufacturers, etc. The various complex processes and the most up-to-date fire protection and prevention measures for combating the fire and explosion hazards of the industry are discussed in non-technical language.

The booklet states that the growth of this industry has been meteoric—from 25 commercial drying plants in this country prior to the beginning of World War II, to more than 1600 plants now operating in 24 states. The booklet sells for 35 cents postpaid from the National Fire Protection Association, 60 Batterymarch Street, Boston 10, Mass.

READING FOR ARCHITECTURAL STUDENTS

The Study of Architectural Design, John F. Harbeson.

The Significance of the Fine Arts, American Institute of Architects.

Architectural Composition, J. B. Robinson.

A Dictionary of Architecture, Russell Sturgis.

The Conquest of Civilization, James H. Breasted.

A History of Architectural Development, F. M. Simpson.

A History of Architecture on the Comparative Method, Banister Fletcher.

A History of Architecture, Russell Sturgis and A. L. Frothingham.

A History of Architecture, Fiske Kimball and G. H. Edgell.

Short History of Architecture, Russell Sturgis.

Design of Steel Buildings, H. D. Hauf.

Steel and Timber Structures, Hool and Kinne.

Structural Members and Connections, Hool and Kinne.

Structural Details or Design of Heavy Framing, Jacoby.

Building Construction and Superintendence, Kidder, Voss and Henry.

Superintendence and Construction, H. G. Richey.

Architects and Builders Handbook, Kidder-Parker.

The Handbook of Architectural Practice, American Institute of Architects.

Handbooks of Building Construction, Hool and Johnson.

Materials and Methods of Architectural Construction, Gay and Parker.

Building Construction, Huntington.

Concrete Building Construction, Crane and Nolan.

Concrete, Plain and Reinforced, Taylor, Thompson and Smulski.

Principles of Reinforced Concrete Construction, Turneaure and Maurer.

Heating and Ventilating, Allen and Walker.

Illuminating Engineering, Cady and Dates.

Water Supply, Sewerage and Plumbing of Modern City Buildings, William Paul Gerhard.

Mechanical Equipment of Buildings, Harding and Willard.

Handbook for Electrical Engineers, Harold Pender.

Specification Record, American Specification Institute.

Stevens Master Specifications, Frank B. Stevens.

Elements of Specification Writing, R. S. Kirby.

The Architect's Law Manual, Clinton H. Blake, Jr.

Latest edition of the Rules of the National Board of Fire Underwriters.

60 YEARS IN PAINTING BUSINESS

D. Zelinsky & Sons, painting contractors, are celebrating their 60th anniversary this year, a record they may well be proud of. David Zelinsky founded the firm in 1884 in Oakland after journeying to California from Chicago. Soon after the offices were transferred to San Francisco from which point the firm has since operated.

In 1912 offices and shops were opened in Los Angeles where the firm has become one of the largest Southern California operators.

Practically every type of painting contract is handled by the Zelinskys, including building construction, interior decorating, building maintenance, sandblasting, water and weather proofing, camouflaging and tone-down, bituminous coatings, bridge painting and ship painting. While most of their business is done on flat contract, a great deal is conducted on a percentage basis.

Present partners of the firm are Mervyn A. Zelinsky and Frederick A. Zelinsky. Of the third generation of Zelinskys, Robert is with the company at present and Edward is in the armed service.

POST-WAR OUTLOOK FOR BUILDING INDUSTRY

(Digests by N. Y. JOURNAL OF COMMERCE)

• *MILLION HOMES A YEAR*

The construction of one million homes annually for a period of 10 years after the war will be the biggest post-war boom in history. There will be a tremendous demand for everything that goes into those homes. We must develop new things to produce. We must make existing things at lower prices. If we do not, there are certain to be fewer jobs instead of more jobs available.—Melvin H. Baker, president of National Gypsum Co.

• *ANOTHER W. P. A.?*

Private construction after the war is more than likely to go beyond fulfillment of deferred demand. With states and many communities in good financial condition, there probably will be no need for a post-war federal emergency works program with subsidies for states and local governments. The rapidly mounting debt holds no certainty that the national income will keep pace with it sufficiently to warrant "anticipation of federal financing of local improvements on a lavish scale."

• *BUILDING MATERIAL CHANGES*

Probable changes in use of building materials: more pre-shaped steel hoists, studding and rafters; more pre-cast concrete slabs; more pre-cast light metal units, such as bath rooms; more use of plywood; plastic wall surfaces replacing plaster; lightening of wire insulation; general adoption of panel and radiant heating; the way cleared by revised building codes and less resistance to change by organized labor.—Aaron N. Kiff of York & Sawyer, Architects.

• *IMPROVED VENETIAN BLINDS*

Due to late developments in glass and the probable trend toward the pre-fabricated house, it might be a factor in revising the styling in all window treatments in which Venetian blinds cannot help but be a major influence. There is a possibility of the Venetian blind being set on a slide arrangement so that the entire thing can be elevated to any position or arranged equally from both ends at the same time, an improvement that has long been needed.

• *LOW-COST, PREFABRICATED HOMES*

Prefabricated Victory homes, having made a huge contribution to the war effort, are prepared to offer the post-war world good housing at low cost. There are millions of families in this country alone who do not have and normally could not afford a suitable home of their own, but with prefabrication a man will be able to buy a house for approximately the price of a popular automobile. Victory housing is most flexible and versatile. It is suitable for use throughout the United States and is especially adaptable to hot climates. Besides providing normal residential housing and its institutional and industrial uses, it is excellent for camps and lakeside cottages, for shooting lodges, guest houses, motor courts and many other types of human shelters. The smallest Victory home measures 16 by 16 feet, but by omitting one wall panel, additional units can be added as desired through the use of floor and ceiling panels. It is inexpensive to heat in winter — utilizing a gas heater, oil stove or coal or wood. Speed in erection is another important asset—a single unit goes up in six man hours. It is demountable and portable. Additional units can be added to increase the size of a house.—Texas Pre-Fabricated House & Tent Co.

• *NEW KITCHEN INNOVATIONS*

Post-war kitchens are going to have shelves that are easy to reach. There will be better facilities for window draperies, bric-a-brac, and a wider range of wall colors to add personality and hominess. Other characteristic points will include greater standardization of kitchen designs and dimensions caused by the need for low-cost housing, better assembly of the complete kitchen unit, continuation of the three-center fundamental of kitchen planning, including refrigeration and preparation center, sink and dishwashing center, range and serving center, and better organization and utilization of storing space.

• *SOUNDPROOF BABY COMPARTMENTS*

Artists and designers believe the post-war era will introduce the use of many new materials such as plastics, light metals, glass, interesting new fabrics and lots of color. One of the most unusual ideas is a bedroom with an air-conditioned, soundproof glass compartment for the baby. [Architect and Engineer, Page 3, February, 1944.] Much thought has been given to the redesigning of functional furniture.

• *WARNS OF OVEROPTIMISM*

It is silly to expect wonderful new prefabricated houses, cars and planes to be forthcoming immediately after the war. We will be lucky to get the old types back in construction.

It is not the chief responsibility of business after the war to provide jobs for everyone. A corporation's efficiency is indicated by the number of men it can release from a job, not by the number of men hired.

By helping the consumer with lower prices and better products, we can get orders and give jobs. Otherwise, we can't do anything.—Sewell L. Avery, President, U. S. Gypsum Co. and Montgomery Ward.

• *WIDE USE OF PLYWOOD*

A booming market for plywood after the war is foreseen. "Great progress in the use of improved, scientific adhesive, plus the newly-perfected plywood constructions employing pastics, papers and other products will place before engineers and designers a great range of new and interesting construction materials. Plywood's amazing strength, lightness, sturdy resistance to the elements, its ease of fabrication make it a material of challenging interest to forward-looking planners."—Lawrence Ottinger, President, U. S. Plywood Corp.

• *RUNNING WATER IN EVERY HOME*

Only 17% of the rural homes in the United States have running water. The organized pump manufacturers of the nation are planning a post-war campaign which can be an important factor in continuing prosperity after peace comes. They

QUALITY AND DEPENDABLE *Service*

are the factors that influence architects and contractors when selecting lumber and mill work — Quality of merchandise — Integrity and Ability of the firm—Service in physical equipment — Experience and Personnel — All these factors contribute to a speedy and satisfactory completion of construction with minimum of time and expense.

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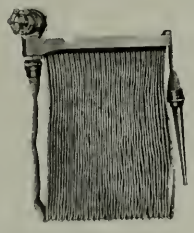

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have adopted the slogan: "Running water in every home." Success can mean continued work for hundreds of thousands of men and women, not only in the pump industry, but in industries supplying it, for a long time to come.

A pump may cost from $100 to $150, but that is not all. If a new well is drilled, casing is needed. There must be piping to carry the water. Storage means tanks. Electric power means motors, gasoline power, engines. Unless these are available pumps cannot be sold.

• *ALUMINUM SPANDRELS AND SASH*

Aluminum freight cars may be the next in line. Tests have been made with aluminum hopper cars for coal and sulphur transportation. Aluminum life boats represent another interesting development; they serve to lessen the weight of the ship at a point where weight is not desirable. There have been a number of architectural installations, such as the use of spandrels on many modern skyscrapers, also aluminum sash windows.

• *PAINTING CONTRACTOR'S DILEMMA*

The painting contractors of America must fight hard for even a small part of the spendable dollar. Their most severe competition will come from outside the paint industry. For proof, see what the automotive, refrigerator, furniture, electrical appliance and other industries are planning for the future. That means the painting contractor will lose the painting of countless square feet of paintable surface, for the painting will be done in the mill by mechanics, and not by painters.

Radio stores, plumbing establishments, furniture stores, even gas stations have started to sell paint, making the consumer paint-conscious, and also painting-conscious. When he is just paint-conscious he thinks of someone applying the paint for him—but painting-consciousness means that he is thinking of doing his own work. It is going to make a difference in business. — Milton W. Lightcap.

• *NEW PLACES FOR ASPHALT TILE*

The wider use of asphalt tile in the home is getting the increased attention of the trade in floor coverings. This type of flooring is being accorded specific consumer promotion by one hard surface manufacturer who emphasizes its value in basement installations. It is a post-war possibility, as shortages in materials and manpower now would render market development difficult. In addition to industrial and institutional uses, household installations would virtually double the hard surface market.

• *CARPET INDUSTRY'S CHALLENGE*

The competition for the consumer's dollar is going to come from more sources than ever. Besides the old competition offered by cars, radios, refrigerators, there will be new industries with compelling appeals of their own. These new industries have a way of starting out with vigorous advertising campaigns, more vigorous than that of the firms already established. Figures of the past show that the carpet industry has been satisfied with advertising appropriations of less than 2%. Right now, interest is sharply focussed on homes. Strong, aggressive advertising is necessary to insure peak carpet sales in the post-war period.

ARCHITECT AND ENGINEER

Estimator's Guide

Giving Cost of Building Materials, Etc.

AMOUNTS GIVEN ARE FIGURING PRICES AND ARE MADE UP FROM AVERAGE QUOTATIONS FURNISHED BY MATERIAL HOUSES TO SAN FRANCISCO CONTRACTORS. 2½% SALES TAX ON ALL MATERIALS BUT NOT LABOR

All prices and wages quoted are for San Francisco and the Bay District. There may be slight fluctuation of prices in the interior and southern part of the state. Freight cartage, at least, must be added in figuring country work.

BONDS—Performance—50% of contract.

Labor and materials—50% of contract.

BRICKWORK—

Common Brick—Per 1M laid—$50.00 to $60.00 (according to class of work).

Face Brick—Per 1M laid—$120 to $150 (according to class of work.)

Brick Steps—$1.60 per lin. ft.

Brick Veneer on Frame Bldg.—Approx. $1.30 per sq. ft.

Common Brick—$19.00 per M, truckload lots, f.o.b. job.

$19.00 per M, less than truckload, plus cartage.

Face Brick—$40 to $80 per M, truckload lots, delivered.

Cartage—Approx. $4.00 per M.

BUILDING PAPER—

1 ply per 1000 ft. roll	$3.50
2 ply per 1000 ft. roll	5.00
3 ply per 1000 ft. roll	6.25
Brownskin, Standard, 500 ft. roll	5.00
Sisalkraft, 500 ft. roll	5.00
Sash cord com. No. 7	$1.20 per 100 ft.
Sash cord com. No. 8	1.50 per 100 ft.
Sash cord spot No. 7	1.90 per 100 ft.
Sash cord spot No. 8	2.25 per 100 ft.

Sash weights, cast iron, $50.00 ton.
Nails, $3.42 base.
Sash weights, $45.00 per ton.

CONCRETE AGGREGATES—

The following prices net to Contractors unless otherwise shown.

Gravel, all sizes—
$1.95 per ton at 8unker; delivered $2.50

	Bunker	Del'd
Top Sand	$1.90	$2.50
Concrete Mix	1.90	2.45
Crushed Rock, ¼" to ¾"	1.90	2.50
Crushed Rock, ¾" to 1½"	1.90	2.50
Roofing Gravel	2.25	2.80
River Sand	2.00	2.45

Sand—

River Sand	2.00	2.45
Lapis (Nos. 2 & 4)	2.85	3.15
Olympia (Nos. 1 & 2)	2.85	3.10
Del Monte White	84c per sack	

Cement—

Common (all brands, paper sacks), carload lots, $2.42 per bbl. f.o.b. car; delivered $2.72.

Cash discount on carload lots, 10c a bbl., 10th Prox.; less than carload lots $3.20 per bbl. f.o.b. warehouse or delivered.

Cash discount 2% on L.C.L.

Atlas White, Calaveras White, Medusa White } 1 to 100 sacks, $2.50 sack warehouse or del.; $7.65 bbl. carload lots.

Forms, Labors average $200.00 per M.

Average cost of concrete in place, exclusive of forms, 35c per cu. ft.; $10 cu. yd.; with forms, 60c.

4-inch concrete basement floor ..... 30c per sq. ft.

Rat-proofing 7½c

Concrete Steps ..... $1.25 per lin. ft.

DAMPPROOFING and Waterproofing—

Two-coat work, $3.50 per square.

Membrane waterproofing—4 layers of saturated felt, $7.00 per square.

Hot coating work, $2.50 per square.

Medusa Waterproofing, $3.50 per lb. San Francisco Warehouse.

Tricocel waterproofing.
(See representative.)

ELECTRIC WIRING—$12 to $15 per outlet for conduit work (including switches).

Knob and tube average $3.00 per outlet. (Available only for priority work.)

ELEVATORS—

Prices vary according to capacity, speed and type. Consult elevator companies. Average cost of installing a slow speed automatic passenger elevator in small four story apartment building, including entrance doors, about $6500.00.

EXCAVATION—

Sand, 60 cents; clay or shale $1 per yard. Teams, $12.00 per day.

Trucks, $22 to $27.50 per day.

Above figures are an average without water. Steam shovel work in large quantities, less; hard material, such as rock, will run considerably more.

FIRE ESCAPES—

Ten-foot galvanized iron balcony, with stairs, $150 installed on new buildings; $160 on old buildings.

FLOORS—

Composition Floor, such as Magnesite, 33c to 50c per square.

Linoflor—2 gages—$1.25 to $2.75 per sq. yd.

Mastapay—90c to $1.50 per sq. yd.

Battleship Linoleum—available to Army and Navy only—⅛"—$1.75 sq. yd. 3/16"—$2.00 sq. yd.

Terazzo Floors—50c to 70c per square.

Terazzo Steps—$1.75 per lin. ft.

Mastic Wear Coat—according to type—20c to 35c.

Hardwood Flooring—
Standard Mill grades not available.
Victory Oak—T & G

25/32 x 2¼"	$143.25 per M. plus Cartage
½ x 2"	122.00 per M. plus Cartage
½ x 1½"	113.50 per M. plus Cartage

Prefinished Standard & Better Oak Flooring

25/32 x 3¼"	$180.00 per M. plus Cartage
½ x 2½"	160.50 per M. plus Cartage

Maple Flooring

25/32" T & G Clear	$160.50 per M. plus Ctg.
2nd	153.50 per M. plus Ctg.
3rd	131.25 per M. plus Ctg.

Floor Layers' Wage, $1.50 per hr.

GLASS—

Single Strength Window Glass	20c per □ ft
Double Strength Window Glass	30c per □ ft.
Plate Glass, under 75 sq. ft.	$1.00 per □ ft.
Polished Wire Plate Glass	1.40 per □ ft.
Rgh. Wire Glass	.34 per □ ft.
Obscure Glass	.27 per □ ft.

Glazing of above is additional.
Glass Blocks ..... $2.50 per □ ft. set in place

HEATING—

Average, $1.90 per sq. ft. of radiation, according to conditions.

Warm air (gravity) average $48 per register.

Forced air, average $68 per register.

IRON—Cost of ornamental iron, cast iron, etc., depends on designs.

LUMBER — All lumber at O.P.A. ceiling prices—

No. 1 Common	$49.00 per M
No. 2 Common	47.75 per M
Select O. P. Common	52.75 per M

Flooring—

	Delvd.
V.G.-D.F. 8 & 8tr. 1 x 4 T & G Flooring	$80.00
C 1 x 4 T & G Flooring	75.00
D 1 x 4 T & G Flooring	65.00
D.F.-S.G. 8 & 8tr. 1 x 4 T & G Flooring	61.00
C 1 x 4 T & G Flooring	59.00
D 1 x 4 T & G Flooring	54.00
Rwd. Plastic—"A" grade, medium dry	82.00
"B" grade, medium dry	78.50

Plywood—

	Under $200	Over $200
"Plyscord"—3/8"	$49.50	$47.55
"Plywall"—1/4"	45.15	43.30
3 ply—2/s—1/4"	48.55	46.60
"Plyform"—5/8"—		
Unoiled	126.50	121.45
Oiled	127.90	122.75

Above prices delivered if quantity is sufficient to warrant delivery.

Shingles (Rwd. not available)—

Red Cedar No. 1—$6.75 per square; No. 2, $5.75; No. 3, $4.45.

Average cost to lay shingles, $3.00 per square.

Cedar Shakes—Tapered: 1/2" to 3/4" x 25"—$8.95 per square.

Resawn: 3/4" to 1 1/4" x 25"—$10.65 per square.

Resawn: 3/4" to 1 1/4" x 25"—$10.65 per square.

Average cost to lay shakes, $4.00 per square.

MILLWORK—Standard.

O. P. $100 per 1000. R. W. rustic $100.00 per 1000 (delivered).

Double hung box window frames, average with trim $6.50 and up, each.

Complete door unit, $10.00.

Screen doors, $3.50 each.

Patent screen windows, 25c a sq. ft.

Cases for kitchen pantries seven ft. high, per lineal ft., $9.00 each.

Dining room cases, $9.00 per lineal foot.

Rough and finish about 80c per sq. ft.

Labor—Rough carpentry, warehouse heavy framing (average), $40.00 per M.

For smaller work average, $40.00 to $55.00 per 1000.

MARBLE—See Dealers)

PAINTING—

Two-coat work	per yard 50c
Three-coat work	per yard 70c
Cold water painting	per yard 10c
Whitewashing	per yard 8c

PAINTS—

Two-coat work	50c per sq. yd.
Three-coat work	70c per sq. yd.
Cold water painting	per yard 10c
Whitewashing	8c per sq. yd.

Turpentine $1.03 per gal. in drum lots. $1.08 per gal. in 5-gal. containers.

Raw Linseed Oil—not available.

Boiled Linseed Oil—$1.38 per gal. in drums. Available only to work with high priority—$1.48 per gal. in 5-gal. containers.

Use replacement oil—$1.86 per gal. in 1-gal. containers.

Replacement Oil—$1.20 per gal. in drums. $1.30 per gal. in 5-gal. containers.

A deposit of $6.00 required on all drums.

PATENT CHIMNEYS—

6-inch	$1.20 lineal foot
8-inch	1.40 lineal foot
10-inch	2.15 lineal foot
12-inch	2.75 lineal foot

PLASTER—

Neat wall, per ton delivered in S. F. in paper bags, $17.60.

PLASTERING (Interior)—

	Yard
3 Coats, metal lath and plaster	1.50
Keene cement on metal lath	1.80
Ceilings with 3/4 hot roll channels metal lath (lathed only)	1.20
Ceilings with 3/4 hot roll channels metal lath plastered	2.20
Single partition 3/4 channel lath 1 side (lath only	1.20
Single partition 3/4 channel lath 2 inches thick plastered	3.20
4-inch double partition 3/4 channel lath 2 sides (lath only)	2.20
4-inch double partition 3/4 channel lath 2 sides plastered	3.85
Thermax single partition; 1" channels; 2 1/4" overall partition width. Plastered both sides	3.30
Thermax double partition; 1" channels; 4 3/4" overall partition width. Plastered both sides	4.40
3 coats over 1" Thermax nailed to one side wood studs or joists	1.65
3 coats over 1" Thermax suspended to one side wood studs with spring sound isolation clip	1.90

Note—Channel lath controlled by limitation orders.

PLASTERING (Exterior)—

	Yard
2 coats cement finish, brick or concrete wall	$1.00
3 coats cement finish, No. 18 gauge wire mesh	2.00

Lime—$3.00 per bbl. at yard.
Processed Lime—$3.10 bbl. at yard.
Rock or Grip Lath—3/8"—20c per sq. yd.
1/2"—19c per sq. yd.

Composition Stucco—$1.80 to $2.00 sq. yard (applied).

PLUMBING—

From $100.00 per fixture up, according to grade, quantity and runs.

ROOFING—

"Standard" tar and gravel, 4 ply—$8.00 per sq. for 30 sqs. or over.

Less than 30 sqs. $9.50 per sq.

Tile, $30.00 to $40.00 per square.

Redwood Shingles, $7.50 per square in place.

5/2 #1-16" Cedar Shingles, 4 1/2" Exposure ..... $8.00 square

5/8 x 16"—#1 Cedar Shingles, 5" Exposure ..... $9.00 square

4/2 #1-24" Royal Shingles, 7 1/2" Exposure ..... $9.50 square

Re-coat with Gravel $4.00 per sq.

Asbestos Shingles, $23 to $28 per sq. laid.

1/2 x 25" Resawn Cedar Shakes, 10" Exposure $10.50

3/4 x 25" Resawn Cedar Shakes, 10" Exposure 11.50

1 x 25" Resawn Cedar Shakes, 10" Exposure 12.50

Above prices are for shakes in place.

SHEET METAL—

Windows—Metal, $1.75 a sq. ft.

Fire doors (average), including hardware $2.00 per sq. ft.

SKYLIGHTS—(not glazed)

Copper, 90c sq. ft. (flat).

Galvanized iron, 40c sq. ft. (flat).

Vented hip skylights 60c sq. ft.

STEEL—STRUCTURAL (None available except for defense work).

$150 ton (erected), this quotation is an average for comparatively small quantities. Light truss work higher. Plain beams and column work in large quantities $140 per ton.

STEEL REINFORCING (None available except for war work).

$150 to $200 ton, set.

STONE—

Granite, average, $6.50 cu. foot in place.

Sandstone, average Blue, $4.00. Boise, $3.00 sq. ft. in place.

Indiana Limestone, $2.80 per sq. ft. in place.

STORE FRONTS (None available).

TILE—

Ceramic Tile Floors—70c to $1.00 per sq. ft.

Cove Base—$1.10 per lin. ft.

Glazed Tile Wainscot—$1.25 per sq. ft.

Asphalt Tile Floor 1/8" & 3/16"—$ .18 to $ .35 per sq. ft. Light shades slightly higher.

Cork Tile—$ .40 to $ .75 per so. ft.

Mosaic Floors—see dealers.

Lino-Tile, $ .35 to $ .75 per sq. ft.

Wall Tile—

Glazed Terra Cotta Wall Units (single faced) laid in place—approximate prices:

2 x 6 x 12	$1.10 sq. ft.
4 x 6 x 12	1.25 sq. ft.
2 x 8 x 16	1.20 sq. ft.
4 x 8 x 16	1.40 sq. ft.

VENETIAN BLINDS—

40c per square foot and up. Installation extra.

WINDOWS—STEEL—

30c per square foot, $5 for ventilators.

BOOK REVIEWS

Roman Towns—Photographs and text by Ernest Nash; J. J. Augustin, publisher, New York: $6.00.

Roman Towns is a book of photographs taken in the excavated parts of Rome, Ostia, Pompeii, Herculaneum, Paestum and other towns. The book will be of lasting value as the war has doubtlessly destroyed many of these ancient ruins. Of course Pompeii and Herculaneum come in for the greater share of the photographs as well as Ostia.

This pictorial survey, Mr. Nash says, is limited to those ancient towns whose cultural standards of living would be comparable to that of our modern towns. Hence the pictures shown have been confined to classical Rome and its environs from Tuscany to the Temples of "Magna Graecia" in Southern Campania in the territories of Italy where our forces are fighting in the North with Campania already fought over. A sort of a "vade mecum" the publication bears a quality of less oft-posed or official examples rendering new evocation through the means of textures and a selective photography. With the rising interest in city planning and the desire to know what made the mute archaeology tick as a city, this should be a good addition to one's library.

The contents show a range of examples of dwellings, city and country, apartments, sacred and profane as well as commercial and industrial buildings. Health and sanitation come in for discussion. In relation to dwellings one agrees with the author that no modern architect could have lavished more sense of form and function on a project than the ancient builder achieved in the works reproduced.—Michael Goodman.

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DR. MORLEY IN WASHINGTON, D. C.

Dr. Grace L. McCann Morley, director of the San Francisco Museum of Art, is in Washington, D. C., to attend a meeting of the Department of State's art advisory committee on Inter-American affairs to be held June 26 and 27. Dr. Morley, who is recognized as an authority on Latin American art, is the only member of the committee from the Far West.

1944 BUILDING TRADES WAGE SCALES (JOB SITE) NORTHERN CALIFORNIA

Six- and seven-hour day eliminated on all Government Work. A. F. L. - O. P. M. Agreement calls for eight-hour day.

NOTE: Predeterminations by the Department of Labor, as of July 1 (the wage-freezing date) have not yet been made in all of the counties listed. The wage scales shown are those being paid and in effect mostly by agreement between employers and their union.

CRAFT	San Francisco	Alameda and Contra Costa	Fresno	Marin	Sacramento	San Jose	San Mateo	Vallejo	Stockton
ASBESTOS WORKERS	1.50	1.50	1.25	1.50	1.50	1.25	1.50	1.50	1.25
BRICKLAYERS	1.87½	1.87½	1.75	1.87½	1.75	2.00	1.79-1/6	1.75	1.50
BRICKLAYERS, HODCARRIERS	1.40	1.40	1.05	1.40	1.05	1.50	1.35	1.50	1.14
CARPENTERS	1.50	1.50	1.25	1.43¾	1.37½	1.37½	1.43¾	1.50	1.37½
CEMENT FINISHERS	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
ELECTRICIANS	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70
ELEVATOR CONSTRUCTORS	1.75½	1.75½	1.75½	1.75½	1.75½	1.75½	1.75½	1.75½	1.75½
ENGINEERS: MATERIAL HOIST	1.50	1.50	1.25	1.50	1.37½	1.62½	1.50	1.37½	1.25
PILE DRIVER	1.75	1.75	1.60	1.75	1.75	1.75	1.75	1.75	
STRUCTURAL STEEL	1.75	1.75	1.60	1.75	1.75	1.75	1.75	1.75	1.60
GLASS WORKERS	1.40	1.40	1.12½	1.40	1.12½	1.21	1.40	1.40	
IRONWORKERS: ORNAMENTAL	1.60	1.50	1.60	1.50	1.60	1.31¼	1.50	1.50	
REINF. RODMEN	1.50	1.50	1.60	1.50	1.50	1.60	1.50	1.50	1.25
STRUCTURAL	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.37½
LABORERS: BUILDING	1.00	1.00	.90	.87½	.95	.90	.93¾	.90	.90
CONCRETE	1.00	1.00	.90	.87½	.95	.90	.93¾	.95	1.00
LATHERS	1.75	1.75	1.50	1.75	1.60	1.75	1.75	1.75	1.75
MARBLE SETTERS	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
MOSAIC & TERRAZZO	1.25	1.25	1.12½	1.25	1.15-5/8	1.12½			
PAINTERS	1.50	1.50	1.28-4/7	1.50	1.43	1.50	1.42-6/7	1.64-2/7	1.37½
PILEDRIVERS	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54
PLASTERERS	1.75	1.83½	1.75	1.75	1.75	2.00	2.00	1.75	1.83-1/3
PLASTERERS' HODCARRIERS	1.50	1.60	1.40	1.50	1.18¾	1.50	1.75	1.50	1.50
PLUMBERS	1.70	1.70	1.53-1/8	1.70	1.68¾	1.62½	1.70	1.70	1.50
ROOFERS	1.50	1.50	1.25	1.37½	1.37½	1.37½	1.25	1.37½	1.37½
SHEET METAL WORKERS	1.50	1.50	1.50	1.50	1.50	1.50	1.37½	1.50	1.50
SPRINKLER FITTERS	1.58	1.58	1.53-1/8	1.70	1.68¾	1.62½	1.70	1.70	1.50
STEAMFITTERS	1.75	1.75	1.53-1/8	1.70	1.68¾	1.62½	1.50	1.70	1.50
STONESETTERS (MASONS)	1.87½	1.87½	1.50	1.75	1.75	1.50	1.75	1.75	1.50
TILESETTERS	1.50	1.50	1.37½	1.50	1.37½	1.50	1.50	1.50	1.37½

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PROSPERITY AHEAD FOR BUILDING

Owing to the wartime shortage of many building materials and of manpower, expenditures for maintenance and repair of residential and other construction during the current year are expected to be about 17 per cent less than in 1943, according to a statement by James W. Follin, Managing Director of The Producers' Council, based on a report by The Council's Market Analysis Committee.

The estimated expenditure of $3 billion for 1944 would be less than in any year since 1939, in spite of the great accumulated demand for repair work on the part of home owners, business concerns, and others, Follin said.

"The Committee estimated that expenditures for maintenance and repair will rise to $3.9 billion during the first twelve months after the war, but even this total, which is higher than in any preceding year, will not be large enough to enable property owners to catch up with all necessary repairs," Follin stated. As a result, expenditures for this purpose during the next five post-war years are estimated at the unprecedented figure of $5.4 billion annually, on the average.

"It is believed that the amount of building materials and equipment available for repair and maintenance during the first post-war year will be reduced by the heavy demands for building products needed in new

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construction enterprises, particularly for the erection of new dwelling units.

"The estimated volume of repair and maintenance for the current year is greater, in proportion to the amount of new construction, than in any preceding year. However, it represents only part of the actual need, which is greater than usual on account of the abnormally intensive use being made of existing structures and the inability to replace or renovate them under wartime conditions.

"Adding the estimated $4.6 billion of new construction to the expenditures for maintenance and repairs, the total value of new construction and maintenance during 1944 would amount to $7.6 billion, or slightly more than one-third of the estimated average for the five-year period following the war, which will be $21.6, according to the Committee's forecast. The latter figure is based on the assumption that the cost of construction during the period in question will be 30 per cent higher than in 1940."

Manufacturers of building materials and equipment would be required to produce materials and equipment at the rate of almost $10 billion annually to meet the average demand during the five years, Follin said, pointing out, however, that this total does not include a large additional quantity of building equipment, such as stoves, refrigerators, and bathtubs needed to replace those now in use.

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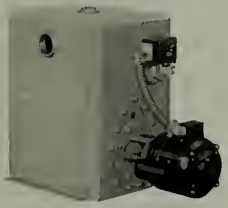
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PREFABRICATION FOR POST-WAR

Benjamin F. Fairless, President of United States Steel Corporation, recently announced that the Corporation had completed negotiations to acquire a substantial interest in the Gunnison Housing Corporation of New Albany, Indiana. He said the acquisition of this interest would provide U. S. Steel with research facilities and the experience of an established and leading organization serving prefabricated home buyers.

"One of the best means of meeting the large post-war demand for homes for people of modest means will be through the application of mass-production methods in the prefabricated housing field," Mr. Fairless said; "to this end U. S. Steel believes that steel will make an important contribution wherever it meets the requirements of design, utility and cost."

Foster Gunnison, founder and principal stockholder of Gunnison Housing Corporation, will continue in charge of the company's affairs. A pioneer in prefabrication, he has spent many years in perfecting the Gunnison home and before the war had distributed his product from coast to coast through a widespread dealer organization. Gunnison homes are designed to sell generally for $2,800 to $5,000.

Mr. Fairless added, "Prefabricated homes should become one of the world's greatest industries and can aid substantially in post-war employment. Everything the steel industry can accomplish in the development of this new type of housing will be another milestone in the social progress of America."

* * *

Henry J. Kaiser, his intimates say, counts the morning lost if his staff doesn't contribute at least one sound idea for using men and materials in the post-war world.

Latest Kaiser genius is seen in his plan to convert shipyards into factories for prefabricating sectional houses in some 200 different styles.

Kaiser contends that surveys have already shown that 37.7 per cent of his war workers will make homes and land their first investment.

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"Kitchens and bathrooms, the most expensive units in home construction, would be manufactured as a complete unit," he said. "Our first step, obviously, is to pre-sell the houses before we start manufacturing."

1944 PRIVATE HOUSING

With about 150,000 new privately-financed dwelling units called for this year by the war housing program of the National Housing Agency, private builders have about as big a war housing job as last year when 158,000 privately-financed war units were started.

This year's war housing job, however, will be highly concentrated in a relatively small number of vital war areas where employment is still expanding. About 65 per cent of all privately-financed housing will be started in 20 localities from present indications.

In more than 800 other localities, private war housing quotas have been met or are nearing completion.

Although the war production situation may bring considerable changes in the war housing picture, current estimates by the National Housing Agency indicate that private quotas will be established for 30,000 to 35,000 more units during the next few months.

Of the 150,000 units it is estimated on the basis of past experience that FHA will insure financing on approximately 85 per cent under Title VI of the National Housing Act.

To speed up the production of urgently needed war housing, Mr. Ferguson said, steps have been taken by the Federal Housing Administration and the National Housing Agency in co-operation with the War Production Board to simplify the processing of applications for priorities. The new procedure eliminates the filing of a detailed list of materials and authorizes FHA offices to approve war housing applications without referring them to WPB offices.

Some 35,000 dwelling units remain to be started in Pacific Coast states.

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Ample electrical convenience outlets and switches in every room, to cope with increased use of home appliances, and wires of sufficient size to carry this load safely and efficiently are two prime considerations in home building.

The architect who gives careful thought to these necessities for convenience and comfort in modern living, is an architect who will assure himself of a host of satisfied clients.

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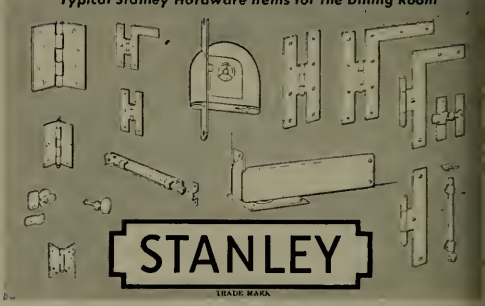

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RUNNING FIRE — by MARK DANIELS

• IT'S STILL A MORAL OBLIGATION

I've heard the argument put up that all this raving about how the soldiers are giving their lives while all the civilian is asked to do is to lend his money. You would think that the soldiers are knocking one another down in their rush to get into the army so that they can dash out and get killed, when as a matter of fact most of them had to be drafted before they would go, so what's the idea of telling us civilians that we are morally obliged to buy bonds in return for the heroic way the soldiers are giving their lives. Yes, that sort of alibi has been trumped up often by a lot of dodgers but, to my way of thinking, it boomerangs with a vengeance.

It is true that we did draft a great many of the soldiers, and sent them to the battle fields. It is also true that some of them may not have gone if they had not been drafted. In many instances we broke up civilian families, interrupted careers and destroyed ambitions and sent men to foreign countries to fight for us. Well, if that does not place us civilians under a moral obligation, plus, nothing will. If we sent them we should back them. If we hired the music we should pay the fiddler. If some of us do not like to consider the obligation as a moral one on the higher plane of a reward for heroism, there is the cold, matter of fact one of paying for what you have ordered. . . . BUY THAT BOND!

• SELL YOUR TRAP GUN

Every rose has its thorn and every cake has its cramp. These wonderful inventions of past and present days have greatly improved certain conditions to the detriment of others. Where they did not throw men out of work they killed them off. The cotton gin threw niggers out of work and the other gins killed them off. The chain shot of the civil war killed two men where one grew before. But all these inventions worked in the field of economics. Now they are beginning to cut down on our pastimes and pleasures, which is time to call a halt.

We read in the military journals that a new sighting device has been invented for anti-aircraft guns by which the gunner can set his sights for the speed of the target, its distance, height and other factors and then blaze away with deadly effect. Now, that is all right in bagging airplanes, but think what it will do to trap shooting! Harry Leon Wilson once said, "Keeping your eye on the ball may be the way to make a good golf drive, but it takes all the fun out of the game." If they put one of those sights on a trap gun and all you have to do is point the gun and blaze away, it will take all the fun out of trap shooting.

• IS THERE A WAY OUT?

One phase of architecture seems to be behind the eight ball. That is the problem of architectural services in the designing of the small house. Not the "smallish" house but the house of one bedroom, or even less. No architect can take on a single house of one bedroom now and then and pay for the blueprints out of the fee that the client for such a house can afford to pay. If the design is left to the contractor there will be little designing done or it will be of a stock pattern in which the characteristics of the particular site are not studied, or the owner will have to resort to a ready-made house with the same result.

The ready built house, the prefabricated house and the numerous other pre-planned houses are systems devised to solve this problem but none of them has yet filled the bill. The American Institute of Architects once sponsored a service bureau to fill the gap but the sponsorship was withdrawn and it died out. Whether a corps of architects could be brought together who could perform such a service and pay rent is doubtful, especially in a western community.

Before the Army and Navy Departments commandeered, so to speak, their resources, the Soulé Steel Company had gone far in the direction of a solution in their development of the Soulé "Unibuilt Steel House," and it is the prayer of aspiring home owners that the company will return to their plan of development, for they had many features that overcame difficulties common to most ready built methods.

• THIRTY PIECES

It is a pity that the daily "heads" could not have been couched in words that did not throw onus on architects in general. As a usual thing the papers do not kick a man when he is down; that is, not always. Why did they have to say, "Architects Questioned in Bribe Case" when the item was about the derelictions of one Ben C. Silver of Los Angeles, and the accusation of his accepting a bribe of $200.00. His arrest and jail confinement were only made possible through the testimony of the director of the Vallejo Housing Authority, so why bring the questioning of architects into it. Mr. Silver's alleged acceptance of a bribe of $200 for the answer to a question by the Board of Architectural Examiners would meet with little credence if the bribe were said to be offered by an architect, for it is doubtful if anyone could be found who would pay $200 to get into the practice. On the other hand, there are many architects who will sell out for much less.

• RECONVERSION

The problem of reconversion has at last forced itself into the consideration of the administration. It is nothing new, at least in equity. For decades the government has handed out contracts, or their equivalent, to citizens and canceled them on short notice. Such contracts do not have to involve actual or tangible merchandise to be the grounds for the right to reconversion, so why cannot any person, who has found that the methods under which he started work for the government have become obsolete, apply for a reconversion.

Of course, this could be carried to absurd extremes. A man might claim that he spent his father's fortune learning to drum the medical call, as was done during the civil war, only to find in the present war that such calls are played on the bugle. Should he received a refund? Many manufacturers, who have tooled up for a contract for this emergency are demanding refunds, and justly, for the obsolescence of their tools. If we could get this idea over there are many of us who would like to go to college again.

"LOOK AT YOUR NEIGHBORHOOD," A CITY PLANNING SHOW AT S. F. ART MUSEUM

This exhibition, designed by Rudolph Mock, architect, and Clarence Stein, one of the foremost planning experts in the United States, will be at the San Francisco Museum of Art up to July 27. It attempts to answer the demands from educational and civic organizations for intelligent and practical information on city planning. It presents such neighborhood requirements as a shopping center, community center, school, etc., in original drawings, photographs and diagrams, with simple explanatory text.

The exhibition consists of twelve panels, and a title panel. The original drawings, some in color, photographs and text, accurately reproduced by a special photogravure process, are mounted on heavy cardboard. Two hundred copies of the exhibition have been made by the Museum of Modern Art whose Department of Circulating Exhibitions and Educational Services prepared the show.

Following is a description of the twelve panels exhibited:

1. **Introductory Panel**—Designed to point out the inadequacy of present towns and cities.

2. **Why We Must Plan**—The need for comprehensive planning indicated by illustrations of overcrowded cities and the resulting chaos.

3. **Planning**—The life of the individual the basis for planning.

4. **A Good Neighborhood Has Good Housing**—The requirements for good living illustrated by contrasting photographs of a planned and an unplanned neighborhood.

5. **A Good Neighborhood Has a Park**—Illustrates the function of a park.

6. **A Good Neighborhood Has an Elementary School**—Designed for the interests and needs of children, class-rooms related to the out-of-doors and shops provided for the special activities of the modern curriculum.

7. **A Good Neighborhood Has a Community Center**—Providing for adult needs, such as photography, shop work, drama, sports and forums. Example of a well planned community center, Woodville Housing Project in California.

8. **A Good Neighborhood Has a Shopping Center**—Illustrated by the MacLaughlin Heights War Housing Project in Vancouver, B. C.

9. **A Good Neighborhood Has Service Shops and Light Industry**—Factories may enhance the neighborhood plan if they are simple and dignified in design, clean and quiet. Careful provision for light industry makes for a more complete and varied community than the purely residential "dormitory" suburb.

10. **Good Neighborhoods Can Be Created or Redeveloped**—Illustrates how good neighborhoods can not only be built from scratch but can also be created through a gradual redevelopment of city areas. A recent project for Philadelphia is shown.

THE TRIBUTE MONEY — **PETER PAUL RUBENS (1577-1640)**

This magnificent oil painting ranks foremost among the art works of the de Young Museum. Painted in 1612, it is an especially prized example of the artist's genius, since, contrary to many other works produced in Rubens' studio, it was completely executed by the master's own hand. The composition illustrates the story of the Pharisees who attempt to confound Christ, only to be frustrated by his admonition: "Render therefore unto Caesar the things which are Caesar's; and unto God the things that are God's."

11. **Neighborhoods May Stand Alone or Become Part of a Town**—When part of a town they will be grouped around a town center containing all the civic and commercial facilities required by the larger population. No matter how large the town or city, the human scale of the small neighborhood will always be preserved.

12. **Planning Now for Postwar Building**—Symbolizes the extensive building activity anticipated after the war.

"WAR ART" BEING SHOWN AT DE YOUNG MEMORIAL MUSEUM

An important and highly personal record of action on the fighting and home fronts by American artists is now on view at the de Young Museum, with the opening of the exhibition, "War Art." The paintings, some 150 of them, were commissioned by "Life" magazine and they constitute the only known continuous record in art of the war to date.

With America preparing for the conflict in 1941, "Life" felt it was logical that our artists play their part in reporting this great effort. On December 7th of that year the artist war-correspondent Tom Lea was already out in the North Atlantic on a destroyer in a convoy carrying lend-lease war material to Great Britain. After Pearl Harbor, artists were sent out to every battlefront, "Life" choosing America's best easel painters for the job. Among the paintings being shown are "Sinking of the Wasp" by Tom Lea; "Fighter Disaster" by Paul Sample; Henry Billings' "U.S.S. North Carolina," the only known painting of this modern, all-welded super battleship; "Idle Hour Park" by Aaron Bohrod; "Rescue Off Bermuda" by Floyd Davis; "Return from Rouen" by Peter Hurd; the sombre "Off to Unknown Ports" by Barse Miller; Edward Laning's "Santa Fe Yard at Belen, N. Mex."; the famous "Hill 609" of the Tunisian Campaign by Fletcher Martin, and many more "on the spot" paintings. The collection keeps on growing as more artist war-correspondents return from the fighting fronts.

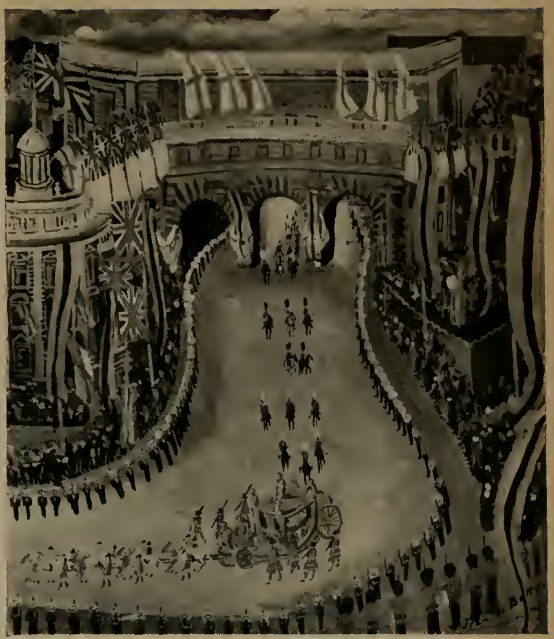
The first showing of "War Art" was held at the National Gallery of Art in Washington, D.C. After it concludes its run at the de Young Museum on July 30th, it will continue on a nation-wide tour of the country's museums. Upon completion of this tour the paintings will be presented to the Government as a permanent eye-witness record of World War II.

TWO UNUSUALLY GOOD SHOWS AT LEGION OF HONOR PALACE

An exhibition of 150 photographs of Greece, under the title, "The Beauty of Greece," is on view this month at the California Palace of the Legion of Honor, San Francisco.

The same photographs were shown at the Metropolitan Museum of Art in New York City earlier this season and are now on a nationwide tour.

On the jury which made the final selection of 150 photographs from the 600 submitted, were Charles Sheeler, nationally known painter and photographer; Andre Maris Embiricos, Greek-American ship-owner; Mrs. Byrtene C. Anderson, assistant director of the Greek War Relief Association; Miss Gisela Richter, Curator of the Department of Greek and Roman Art at the Metropolitan Museum of Art and Miss Amey Aldrich, a volunteer worker with the Greek War Relief Association.



PAINTING by John de Botton

Procession through the Admiralty Arch at Coronation of King George VI. One of a collection of paintings by de Botton now being shown at the California Palace, Legion of Honor.

Among the photographs included are three by the late Arnold Genthe, "In a Monastery of Mt. Athos," "Meteora Rocks" and "In a Greek Monastery." These photographs were turned over by Genthe's estate to the Greek Government and were obtained for this exhibition through the efforts of Consul General Nicholas Lely. Another well-known photographer represented in this exhibition is Mme. Nellys; there are also photographs made by Artemis Tavshanjian, Sarah Elizabeth Freeman and Homer Thompson, formerly Director of the Royal Museum of Art and Archaeology in Toronto, now on leave from that post and with the Admiralty in the Mediterranean theatre of war. Pictures by archaeologists, anthropologists, artists, Greek emigrants, and American travelers are also included in the show.

Another top exhibition this month is sculpture by Anna Hyatt Huntington — 20 pieces done in aluminum.

Anna Hyatt Huntington (Mrs. Archer M. Huntington), well known sculptor, is the daughter of a noted naturalist and professor of zoology at Harvard, the late Alpheus Hyatt, of Cambridge, Massachusetts. From her father, a distinguished paleontologist and friend of Louis Agassiz, she in-

herited a fondness for the study of animals, and they were her first models when she took up sculpture. She is said to have done for the workhorse in sculpture what Millet and others of the French and Belgian artists did on canvas for the peasant. She has modeled groups of farm horses ploughing; horses pulling heavy loads up steep and rocky roads; dray horses being goaded through city streets. From horses she turned to the inhabitants of the jungle, taking as her early models the lions, tigers and deer of the Boston and New York Zoological Gardens. At one time she was a student of Hermon A. MacNeil and Gutzon Borglum at the Art Students' League in New York City.

In her statues of animals the plastic sense is strong but great freedom is allowed in the matter of composition.

Mrs. Huntington is represented by numerous pieces in both marble and bronze in private collections and in public galleries and museums in the United States and abroad. Large fountains and garden sculpture designed by her are in many private estates in the United States. Mrs. Huntington's work has won her many honors and international recognition as one of the foremost women sculptors.

WATERCOLORS BY AMERICAN ARTISTS AT SAN FRANCISCO MUSEUM OF ART

Fifty-eight paintings by leading American artists, many of whom are Californians, are in the group of Contemporary Watercolors at the San Francisco Museum of Art. Most of them are scenes of the United States; winter snows of the north, picturesque southern cities, eastern industries and farms, the wide spaces of the west.

Representational rendering predominates in this show with outstanding examples by illustrator Walter Biggs, Ogden Pleissner, Edmund Lewandowski. John Carroll, Dong Kingman, Erle Loran and others show work done in a more poetic vein. Few figure compositions are shown. The American watercolorist is apparently more interested in the physical world about him than in the people who inhabit it.

Watercolor has become a peculiarly American medium and one well suited to the energy, vivacity and adventurous spirit of our people. These examples give a broad view of what is being done with this medium today.

THOENY PAINTINGS A GOOD 1-MAN SHOW AT M. H. DE YOUNG MUSEUM

The de Young Museum in Golden Gate Park is now showing the paintings of an extremely gifted artist of Austrian birth, William Thoeny. Mr. Thoeny is a painter already recognized in his new home, although he has been here only six years. Prior to his coming to America in 1938, he enjoyed outstanding success on the continent with his sparkling and colorful descriptions of the local scene, and also through his engravings illustrating the works of Balzac, Dostoievsky and others.

Thoeny, son of a prominent and cultured family in Graz, began to draw at the age of seven. It was twelve years later that he made the decision between painting and music. The grace and rhythm of his works disclose a talent in this latter field second only to that of his choice. After study in his home city, Thoeny became a prize student at the Munich Academy. In his middle twenties his pictures were exhibited at the Munich Secession Exhibition. Thoeny was one of the contributors at the beginning of a new movement which was later to include such revolutionary painters as Klee, Kandinsky and Miro, and among musicians, Hindemith and Stravinsky. In 1923 he founded the Secession in Graz.

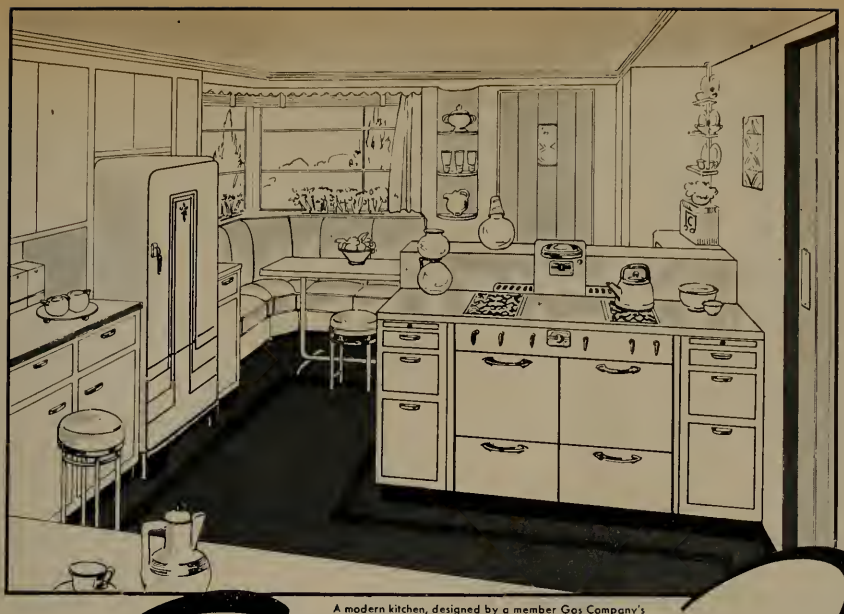
The artist sensed the Hitler scourge long before it hit Austria, and stopping first at Switzerland, later went to Paris where he won immediate recognition. He was commissioned to paint the portrait of Cardinal Verdier, Archbishop of Paris; this painting was exhibited at the Jeu de Paume. Four paintings of his received honorable mention and a gold medal at the World's Fair in the French capital. His works were bought by the Public Galleries of Vienna, Prague, Munich and Venice. In this country he has exhibited at the New York World's Fair, the National Arts Club, Pennsylvania Academy, Carnegie Institute, Toledo Museum of Art and the Chicago Art Institute, as well as in numerous other institutions. Many museum and private collections own his paintings.

Thoeny has divided the present exhibition, his sixth one-man show in the United States, into two sections: "The Europe I Saw, 1919-1938" and "Glimpses of New York, 1940-1944." Of the first group, the artist states that they were done "in a period in which the whole European continent showed phenomena which can only become manifest after such a world war. To the objectively discerning painter, not only the social life, but even the landscape seemed entirely different in comparison to the period before the first world war. It is as if a weight settled over all these countries, which did not lessen in twenty years." But in spite of this feeling of oppression which enveloped Europe during the post-war period, Mr. Thoeny has managed to convey, through a lilting and poetic style, the charm and vivacity which somehow outlived one world war and may withstand yet another. This is particularly noticeable in his watercolors. The second group of his paintings includes "glimpses" of Central Park, Riverside Drive and Broadway and expresses the artist's great admiration for his new-found home.

ARTIST AND WRITER WIN A. B. BENDER GRANTS-IN-AID

George Harris, formerly instructor in art at Stanford University, has been awarded the $750 Albert B. Bender grant in field of art, by a jury named by the San Francisco Art Association. Winner of a similar amount given in the field of literature is Cornel Lengyel of Richmond. The awards are available through establishment of a trust fund in memory of San Francisco's well-loved bibliophile and philanthropist, who died nearly four years ago.

Harris, whose work was judged by a jury composed of Dorothy Puccinelli Crabath, Marian Hartwell, Douglas Macagy, Zygmund Sazevich and Marian Simpson, received his art training at the California School of Fine Arts and later worked with Diego Rivera, famed Mexican muralist and painter. He plans to complete a series of lithographs and paintings from sketches made in Mexico and at local shipyards.



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ARTIST THOMAS EAKINS CENTENNIAL EXHIBITION AT DE YOUNG MUSEUM

In commemoration of the 100th anniversary of the birth of one of America's finest artists, the Philadelphia Museum of Art has organized an exhibition of paintings, drawings and bronzes by Thomas Eakins. The de Young Museum is happy to present this excellent tribute to a man, little recognized in his own day, but acclaimed since his death as one of the few truly "American" artists. For while Eakins' contemporaries were being influenced strongly by Europe's masters and the new group of French Impressionists, this painter managed to retain the flavor of his homeland. His technique and style remained independent of continental "isms" his honest outlook and philosophy stemmed from his native land alone. With Winslow Homer and Albert Ryder, Thomas Eakins helped loosen the knot which tied European apron strings to the American artist.

Some of these figure studies, along with sketches for his now famous paintings of clinics and sporting episodes,. are included in the de Young exhibition. Perhaps the most eloquent of the works now on view, however, are his portraits, some of which transcend the bounds of reality and enter the realm of the spirit.

The de Young presents this Centennial Exhibition through August 6th.

ART NOTES

At the Art Institute of Chicago, Gertrude Abercrombie and Harold Noecker recently held a joint show that aroused some interest among members of the architectural profession. Mr. Noecker is a young Chicago architect and painter. Both paint moonlit scenes, imaginative fantasies, poetic conceptions. However, neither has had formal art training.

* * *

The Boston Museum announced on May 14, with the opening of a special exhibition of 20 of its finest paintings in Lawrence Hall, Williams College, that it was Williams that housed the Museum's art treasures for three months after Pearl Harbor. The exhibition was a gesture of gratitude to the College for caring for 15,000 works of art in fire-proof, air-conditioned structures on the campus, when it was considered unsafe for them to remain in Boston.

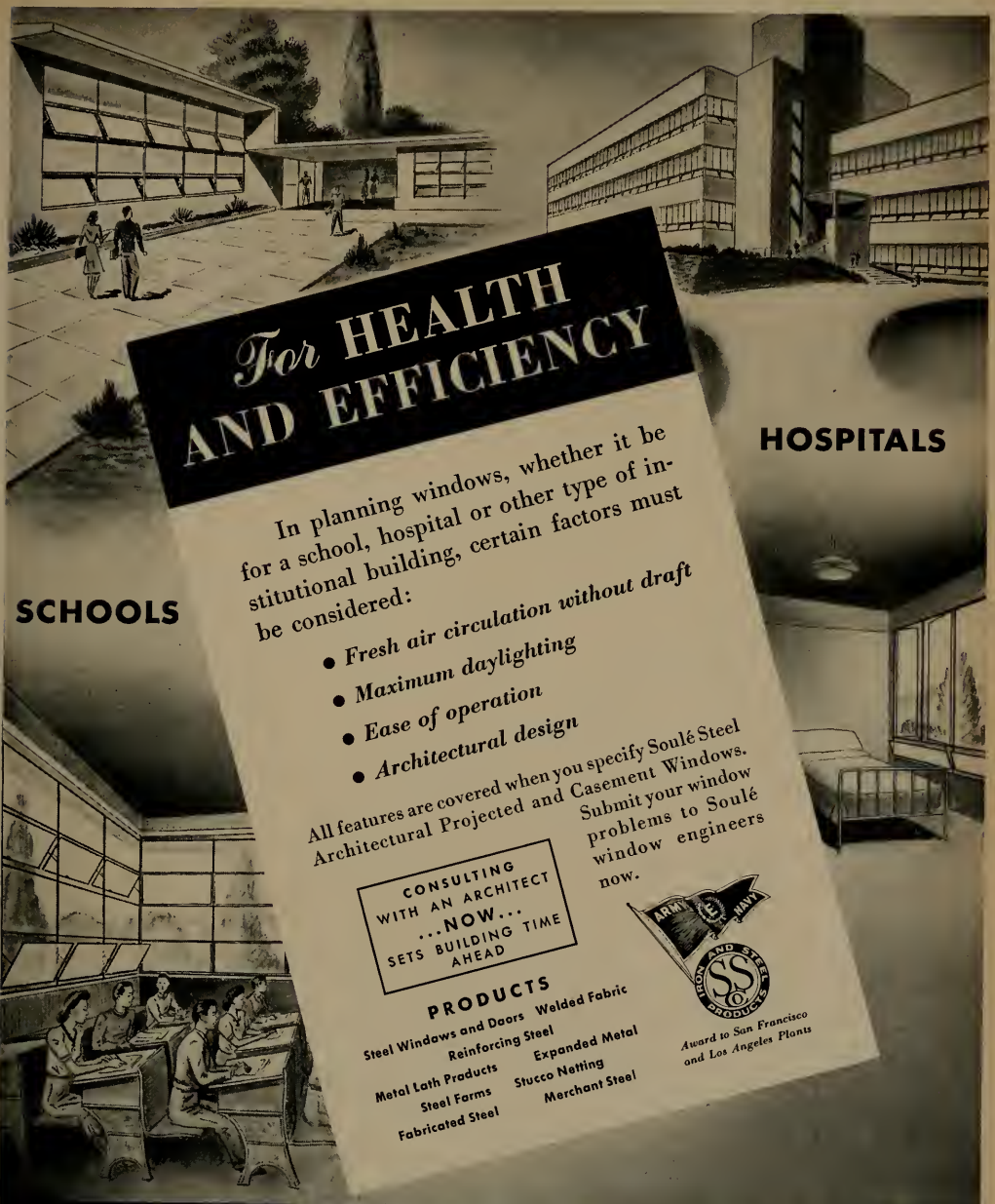
* * *

More than 200 prints and drawings were sold at Laguna Beach's Third National Print and Drawing Exhibition in May. First prize went to Doel Reed of Stillwater, Oklahoma, for his aquatint, "River Country." Arthur Miller called it a "brilliant but mannered work." Second prize went to Margaret Kidder of Altadena for a pencil drawing, "Annunciation." Placing with honors, were Guy Maccoy with a silk screen print and Henri DeKruif, Ivan Messenger and Lugi Rist.

* * *

To execute a series of paintings commissioned by "Life," Edna Reindel, artist known mainly for her paintings of pretty girls, went into the airplane factories and shipyards of Lockheed and Calship, and took notes of the girls at work.

SOULE INSTITUTIONAL WINDOWS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IN THE NEWS

WURSTER ACCEPTS DEANSHIP

Friends of William W. Wurster, architect, were given a real surprise one day, the latter part of July, when the press announced his appointment as Dean of the School of Architecture, Massachusetts Institute of Technology, to succeed Walter R. MacCornack, retired. Even Wurster's closest acquaintances were uninformed of the news until it was made public by Dr. Karl T. Compton, President of the Institute.

Mr. Wurster had only recently returned from a year's stay in the East which was replete with pleasure and hard work. Besides months of study at the School of Regional Planning, Harvard University, the San Francisco architect taught design for a term in the Architectural School of Yale, spending another term with Frederick Adams at the Massachusetts Institute of Technology. Added to this busy absence from California, following 20 years of practice, Wurster bicycled some 500 miles through the New England cities and countrysides and from this trip he drew many interesting comparisons with our own metropolitan areas (Architect and Engineer, June, 1944).

Many buildings and large scale housing projects in California bear the outlines of Wurster's original designs. His work is characterized by its conformity to geographical features of the region, rather than set traditional styles.

He designed Valencia Gardens in San Francisco—the U. S. Housing Authority slum clearance project, with the aid of Harry A. Thompson. He also planned the Yerba Buena Club on Treasure Island in 1939, as well as several war housing projects and other buildings throughout the state.

While his new position will take him away from San Francisco most of the time, Wurster intends to go on with his local practice under the name of Wurster and Bernardi, Theodore C. Bernardi taking charge of the offices at 402 Jackson Street, San Francisco.

NEED FOR GREAT ARCHITECTS

Some architects are beginning to believe that if the profession is to progress and become indispensable, an architecture must be developed significant of the times, backed by a professional policy that will insure steady advancement rather than senility. As Walter Rolfe says in his article in the June Journal of the AIA: "We cannot be content to be mere members of a professional society that believes its mission is complete . . . with the help of scientific invention we must create an architecture so adequately related to local environment, materials, tradition and culture that our people will demand originals and will not return to documents for copies."

"Unprecedented professional opportunities will come when the world conflagration subsides, and design and redesign begin again. America will emerge as a world power in a unique position of great influence. Its architects should be respected, and their advice and consultation sought, as never before. We certainly do need great architects — NOW."

STATE BOARD'S INVESTIGATOR ARRESTED

Last month came a letter from Frederick H. Reimers, secretary of the California State Board of Architectural Examiners, announcing the re-opening of San Francisco and Los Angeles offices for the convenience of license applicants. In the same letter it was stated that the board had again retained the services of Ben G. Silver as its investigator and referred to Silver's past services for the board. A few days later came the shocking news of Silver's arrest on a charge of suspicion of violating Section 68 of the Penal Code covering solicitation and acceptance of bribes. With the aid of Robert Anschen, director of the Vallejo Housing Authority, evidence was presented that Silver had been paid $200 in marked money in return for a copy of one of the board's important test questions.

Joseph H. McClelland, chief special agent of the Attorney General's office, said the arrangement was carried out in the presence of agents after Anschen had told them Silver had approached him, offering the test questions for $500.

Some 95 applicants for architects' licenses have been questioned by special agents of the State Attorney General's office and further developments are awaited.

POST-WAR PLASTIC POSSIBILITIES

A subject of timely interest to architects and engineers was discussed at the June 20 meeting of San Francisco Section, Am. Soc. C. E., following the bimonthly dinner at the Engineers Club. Principal speaker, James Fraser Rae, plastics consultant, whose subject was "Plastics and Their Possibilities in Post-war Developments in California." Rae is a graduate of Aberdeen University and has been associated with the plastics industry for ten years.

The section now has a subscribing membership of 646. New members are Charles L. Coburn, John N. Henderson, R. S. Holmgren, T. W. Lambe, Harold L. May, Lt. Alfred T. Porteous, Herbert D. Richards and Harry H. Shatto.

San Francisco section has amended its constitution to provide for the formation of a committee on employment conditions and organization of a collective bargaining group is under way. T. A. Perrott has been named chairman of a special interim committee on employment conditions.

Elsewhere in this issue is printed a complete honor roll of section members now serving in the armed forces.

ALL HAIL TO COAST GUARD

Editor,
Architect and Engineer:

The Coast Guard, oldest sea service in the nation, commemorates its 154th birthday on August 4th, but men of this heroic, unsung service are much too busy doing an immense and determined job on all the seven seas and five continents to take "time out" for celebration.

Now, particularly, when the eyes of anxious America are focused on the invasion of Fortress Europe, it is interesting to note that the Coast Guard is playing a tremendous fighting role.

Graphic illustration of Coast Guard participation is the story by Tom Treanor, distributed by United Press. "I have just returned from France after hitch-hiking on eight ships, mostly Coast Guard," he writes, "Coast Guard craft seemed to be all over the channel, snatching survivors out of the water, rushing wounded to first aid and landing infantry and vehicles on the beach."

To many Americans, the Coast Guard means only lighthouses, lookout towers and small white surf boats that go out in summer squalls and rescue capsized sailboats. But men of this service have already blazoned their seabags with such names as Normandy, Saipan, Fedala, Tulagi, Florida Island, Guadalcanal, Sydney, Attu, Amchitka, Gela, Singapore, Murmansk, Salerno, Tarawa and the Marshalls.

One vital Coast Guard duty is Port Security, and here, also, many an engineer and architect is helping to do his or her bit as a member of the Volunteer Port Security Force in San Francisco and Oakland. They are helping to safeguard harbors. docks and waterfront facilities of American ports from fire, sabotage, accident and negligence. They are helping to insure the uninterrupted flow of men, munitions and materiel to the fighting forces overseas. And—they are giving more Coast Guardsmen an opportunity to serve with their shipmates on the invasion fronts.

LIEUT. MEL VENTNER
San Francisco.

WILL HELP PROMOTE IDEAS

Editor,
Architect and Engineer:

I would like to express my sincere appreciation for the care and prominent place which you have given to the review of my recent publication, The Architectonic City in the Americas, in the May issue of Architect and Engineer.

This will go a long way towards the promotion of ideas and procedures by which the architectural profession will not only regain a prominent place but also may be enabled to embark upon a vast cultural contribution in connection with post-war rehabilitation. With kindest regards,

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IN THE NEWS

SLUM CLEARANCE LEGISLATION NEEDED

San Franciso's City Planning Commission is backing an urban rehabilitation plan that has a two-fold object: 1—Elimination of the city's slum area; 2—A postwar employment program. Support of a majority of the city's supervisors has been given to a measure which is expected to insure the needed legislation amending existing laws which prevent the condemnation of property, except for public uses, such as parks, rights of way, and public buildings.

Amendments to the law would permit the cities to condemn slum property and resell it to private investors for housing projects. Such a project would do much to abolish blighted areas like Hayes Valley, Japtown and other eyesores.

L. Deming Tilton, head of the Planning Board, has stated that if the state law is amended as outlined above, the city could then pass upon all housing projects before selling the condemned land to any private group. Such procedure would insure full compliance with standard building regulations, a studied style of architecture and a minimum amount of light, air and playground facilities.

Among San Francisco architects who have persistently advocated elimination of the city's blighted areas is Wallace H. Hubbert who, in a letter to the editor of Architect and Engineer, says:

"The existing blighted areas occupy the physical centers of our city. Rehabilitating and converting them is a stupendous task. Will we just tolerate and skip them—skip them literally? That is, let them remain, wade through them and continue developments beyond their area that present fewer problems.

"Or shall we endeavor, for the sake of our city, the city that knows how, to remove these blights?

"Any method of procedure that involves the expenditure of public funds, Federal or local, involves inequities, leads to dissension.

"Private enterprise, with the full cooperation of Government, may accomplish the purpose.

"These areas, block upon block, are owned by numerous individuals. The present income from each parcel is comparatively low in relation to accepted value.

"It may be safely said that if any group, any single block or entire area could be consolidated, if all of the existing structures could be razed, architects or associations of architects could produce plans for developments that would beautify these areas and at the same time provide an excellent income on the investment."

N. Y. SHOWS WORK OF S. F. ARCHITECTS

Last month mention was made in these columns of an exhibit of California schools by the E. J. Kump Company of San Francisco, at the New York Museum of Modern Arts. Inadvertently omitted was mention of three other architects whose work is on exhibition at the Museum: Gardner A. Daily, Harry A. Thompson and William Wurster. The work of the four San Francisco architects is included with that of other nationally known architects and listed in the architectural section of the Museum of Modern Arts as outstanding examples of buildings "Built in U. S. A., 1932-44."

CALIFORNIA ARCHITECTS IN SURVEY

The State Association of California Architects has recently completed a survey on the growth and decline in the number of certified architects in the state during the past twenty years. Statistics compiled from the questionnaire revealed the following:

The average age of the architect has increased from 42.7 to 54.3 years, comparing 1920 and 1940 figures.

The number of architects per thousand of population in 1920 was 18; in 1930 was 17, and in 1940 was 14.

Enrollment in architectural colleges increased to 400 per cent in 1936 and 1940 as compared with enrollment in 1924. Of the 1924-25 group, 50 per cent became architects by 1928. Of the 1930 group, 20 per cent became architects by 1934. Of the 1936 group none became architects by 1940.

In 1924 the profession received 17 per cent new blood and the state law was again tightened. In 1926 the profession received 7 per cent new blood, and the state law was again tightened. In 1930 the profession received 5 per cent new blood and the state law was still further tightened. In 1940 the profession received two per cent new blood.

Out of 460 graduates of architectural schools, 42 became registered architects, and 418 became unregistered architects or draftsmen without certificates.

In 1926-27, 88 per cent of applicants ultimately received certificates. In 1930, 75 per cent of applicants ultimately received certificates. In 1936-37, 38 per cent of applicants ultimately received certificates. In 1940, only 30 per cent of applicants ultimately received certificates.

It was the opinion of the majority who discussed the subject that the state registration laws and examination should be revised and made less drastic.

AFTER-THE-WAR SKYSCRAPERS

Architects and engineers have been selected to design a 37 story building for the 1047 Broadway Corporation in New York and to be occupied exclusively by firms dealing in women's apparel and textile goods. The architects are Ely J. Kahn and Robert A. Jacobs and Sydney Goldstone, associates. Jares, Baum and Bolles will be the mechanical engineers and Chas. Mayer the structural engineer.

Walter W. Ahlschlager, nationally known architect, has been commissioned to prepare plans for a 22-story hotel, with 700 rooms and many special features, for downtown Dallas, Texas. Mr. Ahlschlager designed The Netherlands-Plaza Hotel in Cincinnati. The program will call for an expenditure of between two million and five million dollars.

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LOGAN RESIDENCE • SAN FRANCISCO
ALFRED C. WILLIAMS, Architect

GARDEN VIEW
LOGAN RESIDENCE

Accompanying the five pre-war houses presented here, is an article by their architect, Alfred C. Williams of San Francisco, in which he submits "another contribution to what may be an over-subscribed subject," adding that, "like the war, it is a problem we are not apt to stop talking about until it is licked."

Mr. Williams' houses "are submitted as examples of one architect's pre-war attempts to provide, within his limitations and those of Bay Region's climate and topography, site and budget—the kind of living environment the respective owners deemed most desirable." This environment is summed up in the brief outline of requirements accompanying each house.

Whether Mr. Williams surveys this past work with the regrets or pleasure he mentions in his article is not revealed. He prefers to "leave it to the reader to decide wherein the requirements are satisfied and the solutions sad or pleasurable."

IN SUPPORT OF POST-WAR PLANNING—NOW

By ALFRED C. WILLIAMS, Architect

When London was undergoing air raids in 1941 and evidence was piling up with respect to the effects of bombing on people and structures, the threat of invasion here in the United States produced the same spirit of unified action. Well attended meetings were held to study the arts of civilian defense, first aid, child care, rationing, victory gardening, fire-fighting and traffic direction. Now that the threat is past, it is conceivable that the same spirit might be diverted to the study of neighborhood redevelopment measures, such as improved property maintenance, community landscaping, protective zoning ordinances, re-directed vehicular traffic and controlled arterials, or that the same enthusiasm might be shown to adult education courses in the arts, crafts, sciences, and physical culture. Is it possible that people might be induced to become interested in a broad re-appraisal of our scheme of living? It appears that new patterns for living are receiving serious and official consideration in England. Is it not of paramount importance that every locality in this country come to realize its responsibilities in connection with the formulation of such plans in America?

When Johnny comes marching home, the first thing he will want is a job. It is also fairly predictable that he will believe he deserves a job. The laid-off war worker will also want a peacetime job. He will recall the graveyard shifts, the congestion and inconveniences, the high wartime prices and it is unlikely that he will be satisfied with something less for lack of

(Turn to Page 24)

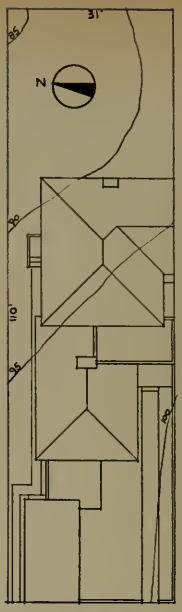
EDITOR'S NOTE: *The author is President of the San Francisco District Society of the State Association of California Architects (Northern Section) and a member of the Board of Directors of the San Francisco Planning and Housing Association. Mr. Williams is presently undertaking the establishment of a Building Industry Center discussed elsewhere in these pages. Next month's issue of the magazine will include an article in which he presents some views on the subject of housing projects based upon his experience as a project planner with the Federal Public Housing Authority.*

ENTRANCE APPROACH

LOGAN RESIDENCE • SAN FRANCISCO

Alfred C. Williams, Architect

Fracchia & Trufelli, Contractors



SITE PLAN

REQUIREMENTS

Two-story house with second floor bedrooms.
First floor study with over-night guest accommodations.
Living room view of Golden Gate and Sutro Forest.
Kitchen with abundant counter and cupboard space.
Garden with facilities for outdoor living.
"Colonial feeling" only to a degree that imposes no design limitations with respect to livability.

SPECIFICATION OUTLINE

FOUNDATION: Reinforced concrete with concrete post-hole footings.

EXTERIOR WALLS: Douglas fir studding covered with Angier Corp. "Brownskin" under saw-sized redwood bevel-siding, stained grey.

MILL WORK: C. A. Wilder, 2156 San Bruno Ave., San Francisco.

EXTERIOR SASH: Libbey-Owens-Ford S.S. glass (D.S. in living room view window.)

WEATHERSTRIPPING: Chamberlin Metal Weather Strip Co., Inc.

FIREPLACE: Miller dome-type damper.

ROOFING: Pioneer-Flintkote "Thik-but" mineral surfaced shingles with redwood gutter, #26 gauge galvanized iron leaders. Three layers 15# felt under 80# deck-sheet topping on second floor deck.

INTERIOR WALLS: Douglas fir studding covered with wood-lath and galvanized chicken-wire and plastered (smooth painted hard-wall in baths and kitchen, integral color with floated sand-finish elsewhere).

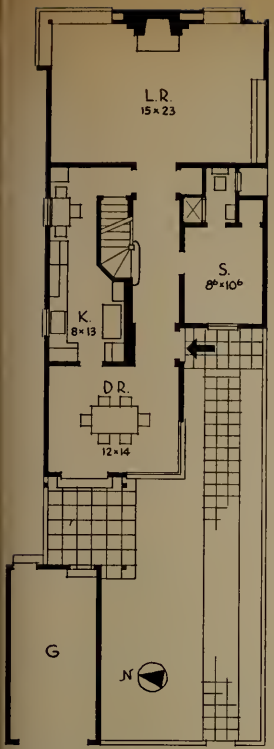
FLOOR COVERINGS: Armstrong linoleum in kitchen; Gladding McBean glazed tile in baths; red oak strips elsewhere.

PLUMBING EQUIPMENT: Kohler of Kohler, color white.

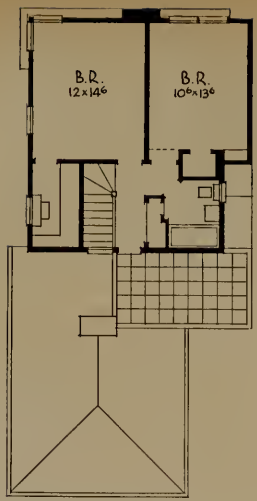
HEATING EQUIPMENT: Colan Heating and Sheet Metal Co.

FROM DINING ROOM INTO GARDEN

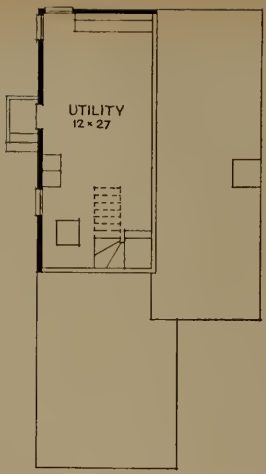
FROM LIVING ROOM TO GOLDEN GATE
CORNER WINDOW VIEWS



GROUND FLOOR PLAN



SECOND FLOOR PLAN



BASEMENT PLAN

URBAN OASIS

HALL VIEW OF LIVING ROOM FIREPLACE

SIDE TOWARD BAY VIEW

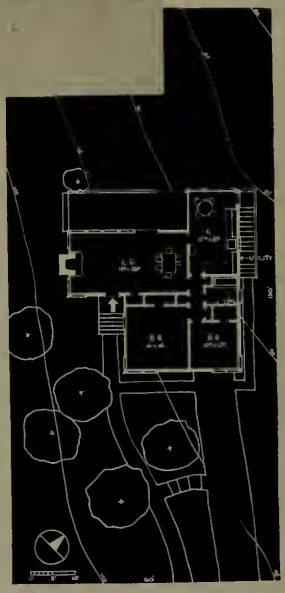
RESIDENCE IN OAKLAND

Alfred C. Williams, Architect

George Hastings, Contractor

REQUIREMENTS

Total cost to be kept within very limited budget.
Kitchen of ample size with pleasant outlook.
Save all trees.
Take advantage of extensive San Francisco Bay view.
Large informal living room.



PLAN

APPROACH VIEW

SPECIFICATION OUTLINE

FOUNDATIONS: Concrete.

EXTERIOR WALLS: Painted Douglas fir rustic over Douglas fir studding.

ROOFING: Cedar shingles.

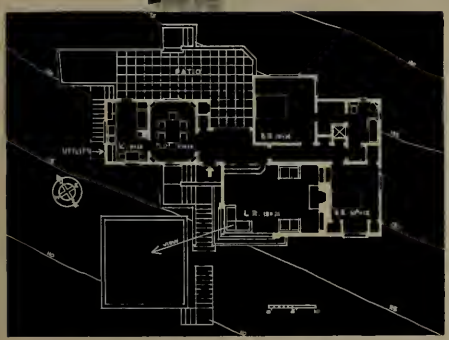
INTERIOR WALLS: Oil Douglas fir rustic in living room, plaster elsewhere (smooth painted hardwall in bath and kitchen, floated sand-finish with integral color in bedrooms), living room ceiling Armstrong's "Tem-lok" insulating board over exposed rafters.

FINISH FLOORS: 1x4 T&G vertical grain Douglas fir, linoleum covered in bath and kitchen (Paraffine Company), oiled and waxed elsewhere.

PLUMBING EQUIPMENT: Standard Sanitary Mfg. Co.

HEATING EQUIPMENT: Atlas Heating & Ventilating Co.

PAINT: Paraffine Company.



FLOOR PLAN

RESIDENCE IN MONTCLAIR

Alfred C. Williams, Architect

Archie Waring, Contractor

REQUIREMENTS

One-story house with main bedroom on side of house away from the sun.

Generally open feeling in house with easy access to patio from living room and kitchen.

Abundant closet space everywhere.

Keep clear of pine trees.

Take advantage of view.

Over-size bath room.

PATIO-LIVING ROOM RELATIONSHIP

SPECIFICATION OUTLINE

FOUNDATIONS: Reinforced concrete.

EXTERIOR WALLS: 2x4 Douglas fir studding with cement plaster over wood sheathing, 14# asphalt saturated felt and furred-out galvanized chicken wire mesh.

ROOFING: Cedar shingles dipped in linseed oil.

INTERIOR WALLS: U. S. Gypsum Co. "Sheetrock" half-inch plasterboard with recessed edge and taped joint system, painted.

MILLWORK: Sugar pine and vertical grain fir.

FINISH FLOORS: Matt-glazed tile in bath, linoleum in kitchen, 2" red oak strips elsewhere.

BATH EQUIPMENT: Crane Co., color white.

KITCHEN EQUIPMENT: General Electric Co.

HEATING EQUIPMENT: Gas-fired gravity type central furnace.

STREET VIEW

RESIDENCE IN BERKELEY

Alfred C. Williams, Architect

Walter H. Anderson, Contractor

REQUIREMENTS

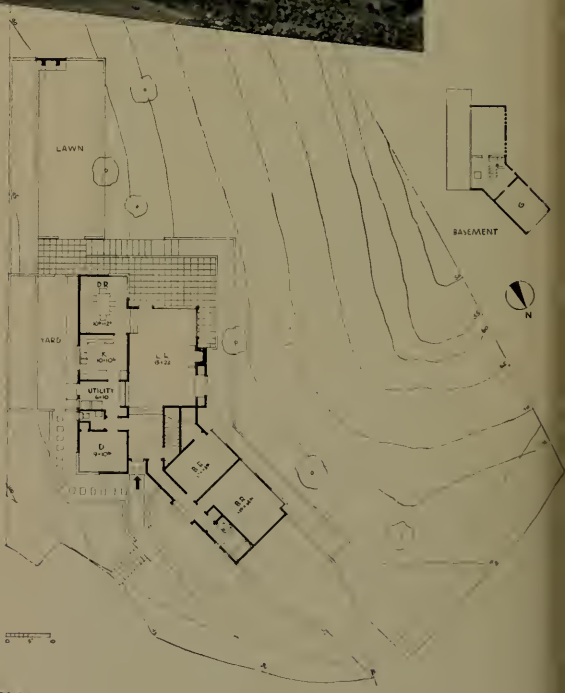
Provision for future servant quarters and work room in basement.

Ample provision for outdoor living and enjoyment of the extensive view out over the Bay and surrounding shores.

Bedrooms well elevated above the ground and away from street traffic.

Study with over-night guest possibilities.

Play yard that could be supervised from the kitchen.



PLAN

PECIFICATION OUTLINE

OUNDATIONS: Reinforced concrete.

XTERIOR WALLS: Redwood rustic over Angier Corp. Brownskin" over Douglas fir studding.

OOFING: Heavy cedar shakes, terra cotta tile over sphalt felt membrane on wood framed deck.

NTERIOR WALLS: Wood lath and galvanized chicken ire plastered (smooth painted hardwall in baths and tility rooms, same papered in bedrooms, floated sand-nish with integral color elsewhere).

XTERIOR SASH: Fenestra Metal Sash.

VEATHERSTRIPPING: Chamberlin Metal Weather trip Co.

INISH FLOORS: Paraffine Company's linoleum in ath and kitchen, oak elsewhere.

AINT: General Paint Co.

IARDWARE: Schlage Lock Co.

LECTRICAL EQUIPMENT: General Electric Co.

LUMBING EQUIPMENT: Kohler Co.

AUNDRY EQUIPMENT: Bendix Home Appliance Co.

IEATING EQUIPMENT: Gas-fired gravity type cen-al furnace.

GARDEN VIEW OF DECK

LIVING ROOM VIEW OF DECK AND BARBECUE

1945" KITCHEN

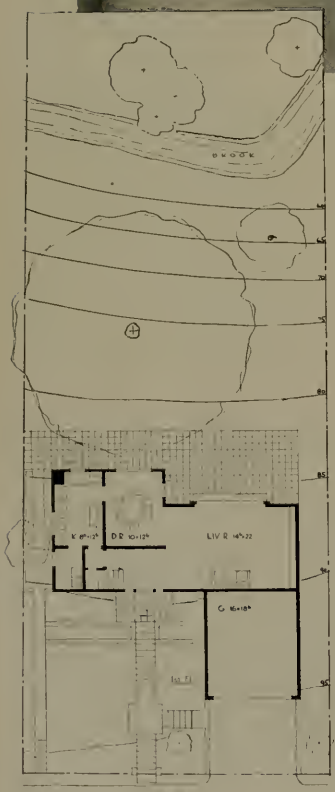
LIVING ROOM TOWARD VIEW WINDOW

LIVING ROOM

Note terrace relationship

OAKLAND RESIDENCE

Alfred C. Williams, Architect



GROUND FLOOR PLAN

APPROACH VIEW

DINING ALCOVE AND TERRACE FROM LIVING ROOM

SPECIFICATION OUTLINE

FOUNDATIONS: Reinforced concrete.

EXTERIOR WALLS: Two-coat, cement-washed, cement plaster with float-finish on furred galvanized chicken wire over "Sisalkraft" on wood sheating over 2x4 Douglas fir studs.

EXTERIOR SASH: "Fenestra" steel windows.

ROOFING: Linseed oil-dipped cedar shingles, galvanized iron gutters and leaders.

INTERIOR FINISH: Painted U. S. Gypsum Co. half-inch "Sheetrock" with taped joint system. Bleached and waxed Douglas fir vertical grain flooring both sides of partition between hall and dining alcove.

FINISH FLOORS: Linoleum in bath and kitchen, quarter-sawn red oak elsewhere on first floor ,carpet over fir flooring elsewhere on second floor.

PLUMBING EQUIPMENT: Standard Sanitary Mfg. Co.—color white.

HEATING EQUIPMENT: Gas-fired gravity type central furnace.

HARDWARE: Schlage Lock Co.

PAINT: W. P. Fuller.

MILLWORK: White pine and Douglas fir.

FLUSH FIR SIDING ON STAIR AND BALCONY RAIL IN TWO-STORY HALLWAY

REQUIREMENTS

Privacy from elevated street-approach.

Develop intimate relationship between interior and outdoor features which included southern exposure, a brook and a magnificent oak tree.

Adequate room areas within a limited building budget.

TERRACE DETAIL

GARDEN VIEW

employment, when a normal existence once again becomes a possibility. Provision of that job is the solution to the problems of the immediate and critical post-war years; jobs that generate the purchasing power that turns the wheels of production. When America is producing she is invincible. Witness the war! America on the March! **Destructive work being magnificently advanced.** With victory will come peace, lay-offs and a demand for work. Pent-up purchasing power may provide it. If not, it had best be **constructive work—magnificently advanced.** Rumors that it cannot or should not be done may not be respected by war veterans and war workers. They may believe that if it can be done now to win the war it must be done later to win the peace.

How? By keeping America on the march! By seeking out a new enemy and striking him whenever and wherever we find him, with everything we have, just as we are now doing with Naziism and Tojoism and Fascism.

And who might that new enemy conceivably be? America on the march should have no difficulty admitting it is ignorance, poverty, malnutrition, crime, rural isolation and exploitation, and in population concentrations—contagious diseases, juvenile delinquency, property blight, fire hazards, traffic hazards, noise, squalor, and if we choose to go all the way—prejudice, avarice and cynicism.

If this great country of ours can afford to build battleships that cruise 3,000 miles offshore to send a projectile the weight of a freight car 25 miles through the air into a crowd of Japs on an island in the South Pacific, it can afford to build school, health and recreational centers in sufficient number and with sufficient operating funds throughout the country to stamp out the enemy we'll have time for, if we'll take the time, when the war is won. And it can afford to assemble and operate all the other necessary equipment and facilities for such an all-out campaign.

Like any campaign it requires planning. Planning for a higher standard of living the advancement of which can make the **work** to which earlier reference has been made. With work will come employment, purchasing power, production.

The building industry needs not only to support a "Plan Now" movement but to become "sold" on a higher standard of living. Many publications within the industry hammer away continually on this fact. And always, particularly in the architectural magazines, the pre-eminent value is the human one. It used to be called scale with respect to physical measurement or appearance. Now it has become the measure of all phases of planning. How well does your national park, highway, reclamation project or city function **for people?** Neighborhood studies, plans for government buildings, schemes for post-war travelers (hotels, motor courts, railway stations, service stations, airports), school - play - health centers, shopping centers, group apartment buildings, homes, all emphasize the importance of design standards that provide more light and air, more contact with the out-of-doors, more convenience and comfort, more safety and privacy **for people.**

Architects have always planned for people. In the years prior to World War II, planning was being increasingly stimulated by the growing consideration within the profession of the advancing needs of people. So today, when the architect reviews the great promises being made on all sides for the post-war, he recalls his pre-war efforts and wonders wherein and to what extent he failed to anticipate the future.

With respect to the future in building, the potentialities of improved mechanical equipment are receiving the widest publicity. Complete air-conditioning providing one ideal all-year round climate indoors that is neither too hot nor too cold, neither too fresh nor too old. Freezing and dehydrating units that will eliminate the daily trek to market and vastly amplify the consumption of frozen salads and desserts. A week's laundry processed by the simple application of momentary finger pressure on a button. If and when the purchasing power is available for these amenities and hundreds of others known or presently unknown, they will be produced in prodigious numbers and find their way into every building in the land.

The potentialities of advanced design are receiving rather less publicity, though well rec-

(Turn to Page 36)

TOWARD URBAN REDEVELOPMENT*

By WILLIAM WILSON WURSTER, A.I.A.

I come to the first point I would like you to remember of this talk—the need of a **Metropolitan Area Authority** which shall represent all people and local places in a democratic way with **real power for action.** And second—that one of these real powers must be **land-use control** which shall guard our heritage and prevent further inroads on its use and beauty. This might mean buying land outright as the European cities have done; witness Stockholm which owned more territory outside the city limits than there was contained within them. Or it might mean some attempt at control such as was suggested in the Uthwatt Report where it was proposed that the government buy the development rights of land which was outside the city boundaries, that it might control which land was allowed to have a change in use. Our immediate problem is the shacktown developments which come outside the corporate limits —first to eliminate the present ones and, next, to prevent the growth of any new ones. Tied in with this is the need for unbuilt area between our communities—which means positive guidance for new subdivisions.

How to get such an authority? A start could be the office of the State Reconstruction and Re-employment Commission, as suggested by Robert Elliott in the articles running in the San Francisco "News." Perhaps the Boston competition might suggest an answer. Just last year the American Society of Planning Officials conducted a competition for "Proposal for the Organization and Operation of a Regional Council in a Metropolitan Area." Careful scrutiny of the prize-winning proposals might provide ideas. It would appear from the Massachusetts experience that we will find that most can be accomplished by clinging to our political parent, the state, which has an over-all control over the cities and counties, and so avoid the understandable jealousies and defeating competition between each minor political unit. This really should not be difficult for we have strong precedents—our own Federal Government, the Tennessee Valley Authority, Los Angeles County's increasing powers, and the already mentioned Port of New York Authority.

During the year, I had occasion to do research in housing and neighborhood planning for Cambridge for Frederick Adams at Technology and Alvin Hansen at Harvard. This took the form of replanning a portion of Cambridge so that: the schools were correctly placed for the child population, had adequate play space, and children did not cross traffic arteries; there was space for passive recreation (small parked areas for adults and babies), playgrounds and playfields; traffic guides and certain closed streets were placed to keep neighborhood planning units free of through traffic. This gives a skeleton on which to base detailed urban redevelopment. This study did not propose to redo housing although some of the worst would have been torn down in creating the open space outlined above. In fact, this could be termed an "open space program," and would be essentially the first step in carrying out a master plan. In the research, all the costs for carrying out such a scheme were computed accurately. In this area of 500 acres, which corresponded roughly in type of blight with our Japanese section, there were 35,000 people.

To bring about these changes to establish a basic pattern, would cost $100 per person and would give employment to 1500 people for one year.

All of this groundwork of discussion is very pertinent to urban redevelopment. Look around you at the blight and decay in our central areas. Think back when all of the areas filled up with people in the towns around San Francisco **before** they would come to our central crowded spaces. Before you begin with actual, detailed plans for redevelopment, listen to what people are saying. "Look, Cities! Your inner dwelling

* This is the second and final installment of a lecture sponsored by the San Francisco Planning and Housing Association and given at the San Francisco Museum of Art, May 31, 1944.

areas, as now built, no longer have a monopoly on urban amenities. Country and suburbs have electricity, telephone, radio, automobiles and dustless roads. We will only return with enthusiasm when you have added to your inherent conveniences some of the freedom and beauty of rural life." To set acceptable redevelopment standards means a knowledge of all this balance between the life in Orinda or Kentfield or Redwood City—as compared with five minutes from work, theaters and music in our central city. Action, following the evaluation of knowledge such as this, can only be administered by a **Metropolitan Area Authority.** Every architect has faced this choice with individual clients.

We cannot expect a surge of population to cover our mistakes in our cities, as it did in the period of 1900-1910 when our national increase in population was some 20% and our urban population increase was double this with 40%. We must look to the census, too, for the trends as regards choice of types of living locations. In the period from 1930 to 1940 there was about a 7% increase in national population and the metropolitan increase was about the same 7%—the rural non-farm was double this with 14%. In our area, rural non-farm means such places as Woodside, Marin County, and in the San Ramon Valley, near Walnut Creek.

Thomas and Whelpton report shows why we will not have a surge of population, for there will come a peak in our population of 160 million (1940—132 million) about 1985 or earlier, after which there will come a decline. This time, therefore, let us plan on land-use and dwellings for **their purpose,** and not mistakenly assume there will be a miracle which will provide a market for the use of ill-fitting cast-offs. If we are to make this complete type of plan it must have a metropolitan basis.

Housing is regarded as one of the key demands for full employment. Two facts help us to understand why this is so. First, both in 1926 and in 1934 (which means in both good and bad times), residential construction cost was **three times** that of the sum of commercial and industrial construction costs. It is interesting and pertinent, too, to find that the housing in a city occupies over **three times** as much area as does the sum of commercial and industrial areas. Here is a rough estimate of the use of the land in the city—a general picture only. I believe they are just now carefully compiling this for San Francisco, in the office of the City Planning Commission:

Residential	35%
Commercial and Industrial	11%
Streets	28%
Parks, Playgrounds, Semi-Public	26%

What is the overall picture of bad housing in the U.S.A.? Let us examine the number of substandard dwelling units both nationally and locally. "Substandard," as shown in simple census terms, means a dwelling that lacks either an indoor flush toilet, or a private bath, or needs major repairs, or has any combination of these failings. Here in San Francisco, as in New York, we have certain crowded conditions which are not properly catalogued as substandard by the above tests, so there is a tendency for our figures to appear better than really is the fact.

In round figures—of the 23 million reporting dwelling units in metropolitan areas, there are 6 million substandard, which means that some 30% are not good dwelling units. Of the 450,000 reporting dwelling units in the San Francisco-Oakland metropolitan area, there are 72,000 substandard, which means that at least 16% are not good dwelling units.

Median rent value (half pay higher—half pay lower) in the metropolitan areas of the nation is $27 per month per dwelling unit. In the San Francisco-Oakland area this is $33.

Median **substandard** rent value in the metropolitan area of the nation is $15 per month per dwelling unit. In the San Francisco-Oakland area this is $18.

It should be borne in mind these figures are as of the 1940 census. It is fortunate that 1940 was a census year, for the 1939-1940 years are as undistorted as any of recent times, for we had climbed from the mid-depression years —and yet it was before the severe dislocations were brought about by our own entrance into the war.

When the discussion centers around blight and decay, in the main it is of these 72,000 dwelling units you are thinking. But these fami-

lies must be provided for if their dwellings are to be torn down. To have them scatter and attempt to find quarters for the same rent they are now paying would be to create the blight anew which we are attempting to eliminate. While provisions need not be for rehousing on the same spot, of course, it would be a social crime to redevelop substandard areas without providing for the present tenants. This points to some type of metropolitan control which can develop a program to meet an overall need.

It is generally conceded that a normal profitable rent is about 12% per year of the capital value—such value includes both land and structure. Let us take the rent of the substandard dwelling units in this area at $18 per dwelling per month, and if it is assumed it earns such a percentage as mentioned above, the capital value of the land and structure is $1800. Such I found to be true in the Cambridge area where I carefully looked up the rents and the assessed value of each piece of property which I proposed to redevelop. This is staggering and disheartening, for it certainly spells subsidy if one is to rehouse those who pay this rent.

Turn now to sources which give us costs on a nation-wide picture and it soon appears how great is the gap between the rent paid and the economic rent for good housing.

The Federal Housing Administration (FHA) issues mortgage insurance to loaning institutions for private construction. In 1940 the average value of the property upon which they loaned was $5200—based upon over 150,000 one-family units. The FHA also provides the following data on rental units, which is based on the cumulative dwelling units from the start of the program to and including 1940: The average cost was just under $5,000, based upon over 30,000 units, and the average rent was just over $54 per month.

The United States Housing Authority (USHA) which operates under the 1937 Housing Act, whose avowed purpose is slum clearance, tells us the following: By the end of 1939 they had the experience of constructing 65,000 dwelling units at the average cost of a little under $4500.

The difficulty of our problem will be clearly pointed out when we tabulate the rentals (includes imputed rent for ownership) of this metropolitan area:

One-third pays under $27 per month per unit,

One-third pays from $27 to $40 per month per unit,

One-third pays over $40 per month per unit.

This means that if the costs of land and building could be brought down to $4,000, only the top third of our population could afford to live in them and pay the economic rent of 12% per year.

This brings us directly into the legislation which is being discussed at both national and state levels. The California Housing and Planning Association has published an excellent pamphlet called, "A Chart for Changing Cities." This carefully outlines the Thomas and Wagner Bills at the national level and the qualities of the various state bills which have passed, are pending, or will be proposed. If we are realistic and try to face the problem squarely without any mysterious abracadabra, here is the problem stated in its simplest terms: How much inducement to private capital must be offered by way of eminent domain and tax exemption to bring about action? At the same time realizing the necessity of a parallel social program which will care for the displaced tenants. Let us also be frank enough to call tax exemption **a subsidy.** And, too, we must always realize that the deficit between $40 and $18 rental per unit per month must be met by some method.

At a conference on Urbanism, the following was written by Walter Gropius and Martin Wagner: "Land has been traded across the counter of real estate offices as though it were a commodity. But land is not a commodity; for, unlike buildings, it cannot be produced nor moved nor replaced." We may well come to regard land as we do water supply and sewage disposal and seek to hold it free of speculative character. The situation in the cities at present shows that ownership and taxation must not be allowed to distort land-use from its best social purpose. The very disregard of this has brought about the jam we are now in.

The following list of brief conclusions, I would leave with you:

1. A Metropolitan Area Authority is needed which shall have far-reaching legal powers; one of the chief of these being land-use control.
2. Decentralization proves that families want space, light, air, and freedom from noise and traffic danger. Any successful urban redevelopment scheme must furnish these.
3. No over-all solution is to be found in any present state legislation such as now exists in New York State, Illinois, etc. California must reappraise the problem and start anew.
4. On the social and economic side, urban redevelopment must face and solve the following:
   a) Public acquisition of large areas both inside and outside the cities with some method of writing off part of the paper value where necessary.
   b) Rehousing, somewhere, for displaced families, which means maximum economies in private enterprise plus subsidized public housing, where necessary.
   c) Realization that the whole movement means **more** controls rather than less.
   d) A point of view which recognizes the need of having local democratic participation with emphasis on the neighborhood idea.

MONTE CASSINO

By FREDERICK C. MURPHY, F.A.I.A.

Certain cities are so situated as to become cross-roads of civilization—sharing the vicissitudes of several of the important movements in the history of art and architecture and retaining permanent monuments scarred by conflict of arms but of considerable value to the student.

Cassinum ranks with Paris, Rome and Seville, and while less picturesque than Mont St. Michel, is nevertheless most impressive in its sturdy mass of structures well knit into the rugged hilltops. Seven or more destructive attacks upon a part or the whole of its cyclopean construction have failed to do more than induce the feeling that it belongs there and will doubtless remain to guide future travelers along the Via Latinum.

St. Benedict, after leaving Subiaco, founded the mother-monastery of his great religious order in A. D. 529. As the cradle of the order, its buildings were finally developed into a well-organized plan of fine scale, pleasing variety and unity in spite of its tri-partite composition and change of levels. It affords to an architectural student an ideal example of site development. Internally the composition has great richness and a striking use of stately cloisters in the Doric order, designed perhaps by Bramante. Antonio di San Gallo is also represented there, and there are pavements done in Opus Alexandrinum, Gothic choirstalls, a richness of display of Florentine mosaic surpassing Florence itself.

As successive generations of scholars passed along the route and turbulency did not subside, Monte Cassino grew in fame. As a seat of discipline and a center for the display of craftsmanship, artists came from Amalfi and from the Orient to mingle with Popes, Abbots, Emperors and Kings who enjoyed its hospitality.

The plan had to be a good one and relief was sought from the intensity of emotional enterprise of the interior by pleasant views up the valley from the Loggio del Paradiso.

Such an environment seemed to satisfy the demands of location, orientation, accessibility and sufficiency in area. A neighborhood of historical significance dating back to a Temple of Apollo, now destroyed, and a Roman town at the foot of the hill, and, as mentioned by Pliny, an amphitheater and a less well-preserved Theater. On the hillside, the Capella del Crosefisso, once a tomb—its plan a Greek cross—is built of large blocks of travertine with a dome of the same material. The tomb of St. Germano is of medieval times and some cold but very well executed examples of the work of the modern Bevron school complete the wide range

Editor's Note—Mr. Murphy's scholarly description of Monte Cassino is particularly opportune in view of the recent bombing of this historic monastery.

of enterprises, artistic and architectural, that complete the story of the achievement of Monte Cassino.

Other monasteries are vast, some like the Certosa de Pavia are richer throughout, Monte Cassino with its contrasts of strength and decision created by its exterior walls with the airiness and grace of its three cloistered courtyards is more dramatic, less transient in effect, for one approaches it most gradually and the unfolding of its plan is gradual and in harmony with the naturalistic surroundings.

Eighty miles from Rome and upon the route between Rome and Naples the ancient town of Cassinum was probably of Volscian origin. Citizenship was granted it by Rome in 188 B. C. There was but little indication in the early history of the town that the ramparts above would sometime later become the metropolis of Western monachism. It was sacked by the Lombards about 580 A. D., rebuilt in 720 and practically destroyed by the Saracens in 884. Its period of greatest influence was attained at the time of Desiderius who later became Pope Victor III in 1087.

Abbots of the mountain monastery became strong feudally and Bishop of several dioceses simultaneously. Extensive territories belonged to the domain of this singular hill-town and its influence at one time spread throughout the then known civilized world.

Its contribution to civilization was to give aid to research in scholarship and as its archives grew in size and selection it was a true seat of learning in a fairly universal sense.

Art was fostered and artists found the partial seclusion of its enclosures stimulating to the imagination.

Away from the imbroglio of commerce and the distractions of larger centers of population, artists could again return to a contemplation of the fundamentals of their craft.

Modern architecture has recently taken a turn toward the study of the larger elements—the cities, towns and communities where men live in large groups, and all structural, social and economic implications of such planning are sought out and carefully analyzed for the betterment of the human race. Living conditions in such entities as Cassinum as they were in the past would easily appear superior to habitation in most modern cities.

We need to go to a cross-roads—not too distant from a main arterial highway, as was the Via Latinum—to be near but to be remote from too great congestion. Perhaps we have already a pattern, for much that we plan to do in the not too distant future—the plan that we have just contemplated.

We could add to its advantages, of course, all of the amenities of our present-day civilization, if we cared to do so, such as central heating, electricity, radio broadcasting, etc., but as a background for good living, such a grouping as this makes most of our highly studied, model towns seem dull and drab, lacking in the inspirational values of splendid site, cohesive construction and daring in scale and composition.

It has been pointed out forcibly by a recent article in the Journal of the American Institute of Architects by Warren S. Thompson, Ph.D., that "whether the city has not blinded us to the meaning of life rather than to deny that life has a meaning."

One wonders then, now that we have time to think and to consider our lives and our surroundings with reference to our physical well-being, our intellectual advancement and the cultivation of a better spiritual outlook, whether we should continue blindly to build bigger cities or rather turn to the past and order our living in a more sane and healthful manner, turn back to better patterns.

Cassinum and its environs should teach us something worthwhile, not exist simply as an episode of chronological interest. Basic virtues are contained in the study of the past, partly hidden values—aesthetic, social and economic—and to be iconoclastic and destroy the past is neither logical nor easily possible when so much that is tangible and good remains.

Successive civilizations, as exemplified in their architectural symbols as we consult them at Cassinum or Rome or Paris, have one thing at least in common. Man was recognized to greater perceptions of the beautiful than perhaps we now think he possesses. We now figure that if the factual relationships of size, shape

and order are satisfied that he has a satisfactory abode. We believe that his natural yearning for something in the way of building good to look at—that this should be stifled. An Opus Alexandrinum floor in a sacristy does more than furnish an area to walk on; it is good to look at. Graceful arches in a cloister do more than wall the passageway that surrounds the courtyard; it creates a fabric of interest in values of light and shade and an essay in the display of constructive skill. Movement is there and a certain ecstasy of purpose obtained with buoyancy and pleasure.

Changes of levels and reasonableness of site occupancy give us a feeling of logical security and echo our first impressions of a site and its development as we approach it by a long climb, such as the approach to the Monastery at Cassino. Architects have visited these religious centers. Many of them are national monuments and as archeologists their interest is valuable, and we have carefully measured many of them, photographed and otherwise presented them for our own use and for posterity in a very satisfactory way. But what we need, seriously, I feel, is to study them as design problems having to do with our own responsibilities of today's practice. Not that we should reproduce Notre Dame of Paris, the portal of St. Trophime or Cellini's Perseus with the Head of Medusa from the Loggia Lanzi in Florence. But there is in all of it, whether in classical Athens, Roma, Medieval Chartres or Florence of the Renaissance, much that has eluded us, escaped notice, things that are basically the result of style but happen to originate in a particular period. Such a thing is the value of a retaining wall of heroic measurement and apparent great thickness. Likewise the power of silhouette as illustrated by Durham Cathedral or Salisbury's great crossing spire. Our modern opinion should be flexible enough to admit of corrections from the past, however remote.

I began to write about Monte Cassino with the view that, as a study, it could be more thought-provoking than merely affording a cursory example of an Italian hill-city. Design appears to me to be what we need to study and the endeavor has been to attach it to our thinking of today. Do we accept all things that we have as being good, as finalities, more or less, or are we still willing to work at the everlasting problem of design? Cassino has been the laboratory specimen selected for study. Any other old city might have served: Toledo, Chester, Venice—but Cassino is in the public eye for the moment. I have sought to express a small part of what I feel it offers to an architect for him to study further. Scale, proportion, unity, variety, integrity, all open up avenues of thought and our modern effort must be directed along the lines of the expression of the same elemental qualities. One should gain in courage from a study of the antique, for in recognizing its variety, we sense its continual shortcomings which leave the way open for the best which is still to be done.—Monthly Bulletin, Illinois Society of Architects.

FROM SPAIN TO CALIFORNIA

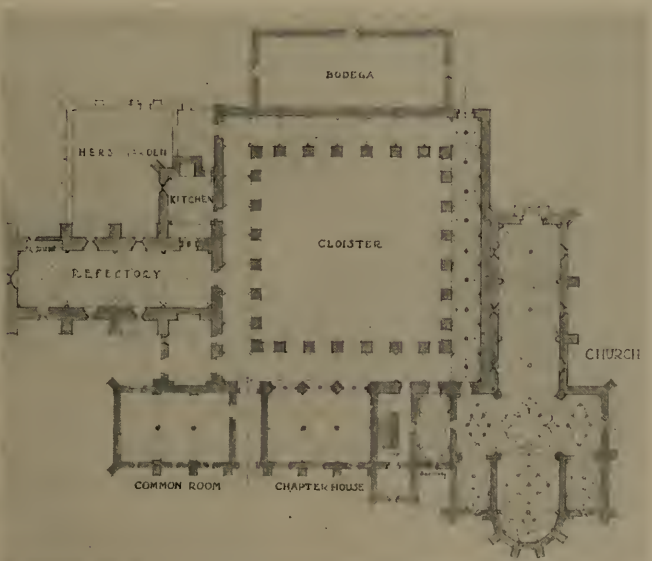
Ancient Monastery to Rise Again

A post-war undertaking which is expected to have early consideration here is the reassembling in Golden Gate Park of the ancient Cistercian Monastery at Santa Maria de Ovila, purchased in Spain and shipped stone by stone to this country some years ago. A gift to the City of San Francisco by William Randolph Hearst, publisher, the monastery is intended as an auxiliary institution to the de Young Museum. When rebuilt it will constitute the most extensive group of medieval buildings in America and will provide not only an incomparable setting for art treasures of the period, but a remarkable record of the development of Spanish monastery architecture during the six centuries that preceded the founding of the California Missions.

That San Francisco is fortunate in its inheritance of this priceless piece of architecture is apparent from recent governmental policies in Europe, indicating that never again will an architectural treasure of its size, nature and importance be permitted to be removed from its original site.

Ultimate site of the monastery in Golden Gate Park is a rolling piece of ground several hundred yards northwest of the de Young Museum, easily accessible and in a setting worthy of its appearance.

In the reconstruction work, not only the careful markings of the stones will be helpful, but through the foresightedness of Mr. Hearst, the forms used to dismantle the monastery have been brought here with the masonry work. These forms — timber arch supports and the like—will be as serviceable in the rebuilding as they were in the dismantling.



PLAN OF SANTA MARIA DE OVILA AS VISUALIZED BY ARCHITECT JULIA MORGAN FROM PHOTOGRAPHS AND STRUCTURAL EVIDENCE

CLOISTER, MONASTERY SANTA MARIA DE OVILA, SPAIN

Photographs show cloister arcades before and during dismantling

Very likely the monastery will be assembled a part at a time. Ten thousand cases containing the stones and building forms are at present in storage in Golden Gate Park. When the reassembling starts, the work will be done under the supervision of Miss Julia Morgan, architect, who also was in charge of the dismantling.

The Monastery of Santa Maria de Ovila was formerly located on the banks of the Tagus River, about eighty miles northeast of Madrid. It was founded late in the twelfth century by the Cistercians, an Order that had had its beginnings in Citeaux, near Dijon, in 1098 and that had quickly spread throughout Europe.

It is believed that the monastery lost its religious character during the disturbance of the Napoleonic Wars. It became private property. In 1931, when the structure was examined by Arthur Byne, a scholar in Spanish architecture, it was being irreverently used for the various work and storage of a farm that surrounded it.

The monastery was called to the attention of Mr. Hearst who was so impressed that he determined to purchase it and to transport it to the United States. The building—or rather complex of buildings—was in a gratifying state of preservation.

As the structure was taken apart, every stone was particularly marked, and carried by mule, crude ferry, ox cart and narrow gauge railway to Madrid. There they were packed with utmost care and shipped to San Francisco.

Like many other structures of its type and period, the Monastery of Santa Maria de Ovila was built gradually over the course of several centuries. Thus its architectural interest is richly increased and diversified.

Elements of it are of Romanesque style, other elements Gothic and some features are even Renaissance. But all the elements, as one may judge from the accompanying illustrations, are unified in a coherent whole.

In building their hundreds of monasteries the Cistercians played an historic creative role in the origin and evolution of medieval architectural styles. By this fact the value of Santa Maria de Ovila is immeasurably increased.

Because of the monastic ideal of seclusion, the exterior of the monastery—unlike that of a Gothic cathedral, for instance—is characteristically sparse in detailed decoration. Exception, however, is found in the portals of the church, since the church was the only part of the Cistercian community to which the public was admitted.

Primarily the exterior finds its beauty in plain structural form. The interior, while it does not depart extravagantly from a simplicity in keeping with the ascetic spirit, is much more decorative.

It is obvious that the self-sustaining nature of monastic life would cause Santa Maria de Ovila to grow into a compound structure each

CHURCH APSE

SIGUENZA CATHEDRAL

SANTA MARIA DE OVILA. Upper left, Dismantling Church Nave. Upper right, Nave Vaulting. Lower left, Dismantling Dormitory. Lower right, Dormitory, Santa Creus.

SANTA MARIA DE OVILA. Upper left, Church Portal. Upper right, Refectory. Lower left: Chapter House. Lower right, Chapter House Portals.

part of which would have its individual function. The whole structure measures about three hundred by two hundred eighty feet.

The central cloister is unusually large—approximately 100 feet square. It is vaulted in the high Gothic style of the fourteenth century. The cloister, which the monks used for passage, promenade and meditation, opens in arcades to a surrounded court.

Dimensions of the large monastery church are one hundred sixty feet in length and some fifty in height. The church was built mainly in the twelfth and thirteenth centuries but was completed only in the fifteenth. It has a single nave, with transept, apse and two side chapels. Its vaults show intricate patterns of the late flamboyant Gothic style. Its belfry dates from the earlier period of construction. The portal, in early Renaissance style, was added in about 1500 and perhaps it supplanted an older church entrance.

Of the twelfth century is the refectory, or eating chamber. It is one hundred three feet long. Its colossal walls, of big block stones, are more than five feet thick. An interesting feature of it is a raised niche or pulpit, from which one monk would read the Scriptures to his brother monks during their meals.

The plainer style of the refectory is contrasted by the chapter house, or meeting hall. Forty by fifty feet in area, it represents the early Gothic style of the thirteenth century and contains finely molded windows and doors and a ribbed vault.

Cistercian monks had their sleeping quarters not in individual cells but in a single dormitory. The Santa Mario de Oliva dormitory, with its huge Gothic arches, is an imposing example of this type of great hall.

Minor in size, but nevertheless important, are other units of the Monastery, including the early Romanesque kitchen, connected with the refectory, and the Gothic sacristy.

IN SUPPORT OF POST-WAR PLANNING—NOW

(Continued from Page 24)

ognized professionally and generally spotlighted by many advertising members of the industry. That the plans being drawn for post-war buildings should reflect a knowledge and understanding of the coming improvements and innovations in mechanical equipment is obvious. That the planners, the "imagineers" should be informed as to their space and utility service requirements, method of application or installation, and approximate costs is equally obvious. The extent to which the plans and forms of tomorrow's buildings contrast with the pre-war models depends upon the extent of the opportunity given the architects and engineers to prepare them and the care which the architects and engineers will exercise in producing them.

Meanwhile every professional in the industry may survey the past with regrets or pleasure, hoping that he will not repeat the same mistakes or that he will do as well next time. And always there is one thing that he and every other member of the building industry can be sure of and that is—a great opportunity confronts the building industry. And lest we forget—no part of the "new enemy," ignorance, poverty of ideas, prejudice, avarice or cynicism should have any part in our approach to it.

One look at the young faces under those bowl-like steel helmets of World War II that, in their over-size appearance seem to symbolize the over-size burden placed upon the shoulders of the youth of America who never wanted this war or any part in it, should be enough to impress the most impassive among us with the obligation we owe them to do a job in our way, comparable to the one they are doing now for us.

BOOK REVIEWS

Family Behavior, Attitudes and Possessions, by Milton Blum and Beatrice Candee. Research Study 5, vol. 4. John B. Pierce Foundation, 1944. $3.00.

This monograph, similar in aim to a number produced in other fields of scientific research, should be revealing to the architectural professional whose interests are not solely those of the craft. The times are such that things architectural are coming in for a share of measurement and evaluation. The notable contribution of this study lies in the number of problems of growing urgency poised for further scouting by the known methods of the "gestalt" technique.

This study needs no special introduction since it received much notoriety, having provided entertainment to news reporters as well as having fed parlor conversation. Among others, one weekly observed that, "only the Marx Brothers could answer those questions without incriminating themselves." The Architectural Forum has done a good piece of reportage on this study. It all started when a comprehensive research program was planned to cover the field of family living. The publication under this review deals with a part of the field research aiming at an analysis of basic functions of living as a result of a careful study of 131 families in a New York area, 65 of which number live in a housing development and the remaining 66 occupying one-family houses of the $3000 to $4000 class of a large project. The functions were, sleeping, washing, dressing and elimination. It is stated in the introduction that such studies will contribute to the knowledge of family wants, and thus toward not only the development of specifications for dwelling design, but will also provide information useful in the field of sociology and psychology laboratory tests, etc. The rollicking attention given to the study centered around reports on what percentage of the sample survey families, male or female, read, smoke, or eat crackers in bed. Habits of dressing were analyzed and many other facts and attitudes tabulated. It made all gayer but not wiser.

The study deals primarily with a summary on a modest beginning made in carrying out this field of research program and methodology in application to the problems involved. The reader who is interested in conclusions may look for future publications based on revised and improved methods in the evaluation of additional corrective sampling and projects. The researchers point out that the consumer research in housing is still in the embryonic stage and that heretofore all progress in the field was achieved by trial and error. I register skepticism that "scientific investigation" will solve the problem, despite the fact that studies in connection with the function of eating have been made in another report, with the resulting "scientific kitchen." There is reason to believe that the trial and error rhythm is still the only realistic measure of achievement in building progress. However, there is truth in their statement that the housewife, the key to the solution of the problem, was most usually overlooked by the architects and housing planners.

The methods in the study were the verbal question kind used as a better one in arriving at specificities and one which is sometimes open to spurious results. The other, the projection technique, is much more interesting and one likely to give more meaningful results by investigating freer situations of a more complex pattern in attitudes. This was to help gain information by means of interview on real motives which determine some of the behavior of people related to housing which cannot be secured as adequately by simple direct questions. This part of the monograph dealing with human nature provides interesting reading. Failure of a method to determine the ideal furniture arrangement by means of scale models in this part was of interest.

I am not against methodology in measurement, despite the fact that some conclusions could have been made "a priori" to save time. Statistical procedure, however, at times may be more convincing than common sense deduction. The researchers warn that "it is not advisable yet to draw conclusions of a statistical nature." I am sorry that the staff, while employing a psychologist, did not secure the collaboration of a competent architect. I am also quite convinced that an architect who has had 66 clients, corresponding in some way to the group H of the 66 families cooperating in the study, would have arrived at much the same data.

The study is good, even if to prove that negative results are as important as positive. I hope that it will add to a future compilation in such a form, together with other related research, as to make it more useful to architects. The Results and Conclusions chapter may be more useful to an administrative and social planner. What is evident throughout the picture is the much greater emphasis upon social values than upon tangible dwelling itself. Conclusions reveal that much effort is being expended on the part of a group studied to maintain a social place.

Space comes in for much discussion. What is real and what is not real? In the chapter on the degree of reality in the ideal dwelling, answers from persons in three levels of income, ranged from vague fantasy to the nostalgic. It seems probable that today the dwelling seldom plays a focal role in good family life, but is apt to assume that role when something is lacking in family relations themselves. The researchers made a series of psycho-analytical explorations when they found in one characteristic group that emotionally disturbed women tend to buy houses. In certain groups collaborating there was a visual resistance to small

spaces as such, and yet there was a tendency to fill up larger unoccupied floor spaces with more furniture. House planning will need to take into consideration and investigate whether there is a usual resistance on the part of human beings to any radical change from the three basic divisions of the home, i.e. kitchen, living room and bedroom, or whether they have a real basis in living needs. Without an attitude coming from real experience with living space, the requisite for more of it came only through psychic pressure projected into space perception. The advantage in technique seems to be in model house display rather than by means of miniature models in room furniture arrangement, when a group of housewives were asked to show preferences.

There were many other interesting items, such as the relation of lighting research to awakening problems; bed reading facilities, etc. And, of course, I suspected for a long time that the housing experts' obsession with cross ventilation will come to no good end as the data indicated.

—MICHAEL GOODMAN.

"Air Menace Spurs Spacious Planning"—L. M. Chitale, F.R.I.B.A., A.M.T.P.I., chartered architect and town planning consultant, Madras, India. The American City, 470 Fourth Avenue, New York 16. April, 1944. pp. 49-50. 35c.

Events in China, Africa, and Europe have shown that modern cities are extremely vulnerable to air attack. Buildings and structures are damaged and destroyed. Transport and communication facilities have been dislocated, water and gas mains damaged, rendering the life of the survivors difficult. . . . As to the design of the future city p. 50. There will be a large central park about half a mile in diameter around which civic buildings, stately edifices, temples and the like would be located. A green belt around these would separate them from city zones lying in the surrounding area — commerce, administration, trade, banking, insurance, etc., each zone separated from the other by parks, open spaces, gardens, and roads. Buildings in these zones would be frame structures, of not more than six stories and located around garages which could be used as bomb-proof shelters in emergency. A green belt of gardens and parks 500 to 1,000 yards wide would encircle this area and separate it from the surrounding residential suburbs. The residential zones would be in the form of townships and villages, self-sufficient and self-reliant in matters of water supply and drainage and lighting. Community centers, capable of conversion into bomb-resisting accommodation for those residing around, would form the foci of each group of residences.

Pasturage and vegetable gardens would encircle the residential belt. In this pasturage would be housed cattle and livestock catering for the dietary, transport and other needs of the city. Anti-aircraft gun positions would be located in this area to check the raiders. The road encircling this pasturage would help to connect the anti-aircraft gun positions, and to defend the boundary. Ammunition stores, telephone exchanges, broadcasting stations, electric power houses, would be housed in carefully designed structures and located in the green belt. Trees and vegetation and parks would make identification of these very difficult. Aerodromes and railway stations are large, and cannot be concealed in gardens; they would lie outside the city, and away from residences. For the same reason factories would be located outside the city. Tanks, ponds, wells, and bathing pools would be all over the city, to provide dependable and copious supply of water for fire fighting, decontamination, and normal peacetime purposes. The entire city would be surrounded by a belt of agricultural land growing cereals and pulses. And it would be superfluous to "dig for victory" in times of war.

When we critically examine the potentialities of aircraft bombs, the methods of air attacks, the method of destruction and damage that a city like this will permit, and the rapidity and facility with which it can recover from air attack, it will become evident that the destruction of city structures will be very expensive, dislocation of the supply of essential services will be nearly impossible, and citizens would be almost absolutely safe. These may not make air attacks impossible but would make raids ineffectual and inadvisable. Herein lies the chance for cities and civilization to survive the air menace.

INN AND MOTOR COURT

A combination inn, public gathering place, and motor court units is planned for Redwood City, according to E. W. Butler, manager of the Redwood City Chamber of Commerce. Included in the plan are a U-shaped group of motor courts, enclosing a blue-tiled, outdoor swimming pool, a terrace where food and drinks may be served, and a barbecue pit. The architecture would be California Mission modernized, with tile roofs, Redwood trees, tropical landscaping, giant camellias, flowering trees, and gay umbrellas and awnings. The plan as outlined would cost in the neighborhood of $250,000.

ARCHITECTS WANT INFORMATION

There is a growing demand among architects for reliable information regarding the nature of building products which will be available for postwar construction, together with details concerning new or modified products on which design information now is available.

The Producers Council, through its local chapters, hopes to be of help in disseminating this needed information in the very near future.

PRODUCERS' COUNCIL PAGE

Northern California Chapter
The National Organization of Manufacturers of Quality Building Materials and Equipment
Affiliated with the AMERICAN INSTITUTE OF ARCHITECTS

L. D. SAYLOR

We honor another "old-timer" who is still an active member, Louis D. Saylor of Vermont Marble Company. "Lou" served as program committee chairman under Vic Anderson back in '40, secretary under Ray Brown in '41, and treasurer under Gano Baker in '42. He is a home town boy, born and raised in San Francisco, graduating from Cogswell Polytechnic College in 1910.

Lou is another fellow who started his career as a draftsman (Macdonald & Applegarth). He has been with Vermont Marble since 1912, less 14 months in Army service in World War I. Next big event was his marriage on his return home and today his favorite hobby is his family, Mrs. Saylor and three fine children, a daughter 21, and two sons 17 and 15.

Lou's activities are Youth. Active in Cubs and Boy Scouts, his two sons received their Eagle awards together. His home is in Mountain View where he has been a member of the School Board for seven years.

Runners-up for Lou's attention are fishing and hunting.

Ray Brown at this writing is in the East on business, a rare opportunity for the Chapter because he is planning to meet with the Council's Technical Cooperation Committee in New York. As head of the Technical Section of our Post-War Planning and Public Relations Committee, Ray is getting all the latest dope on the new bidding practice, Modular planning and building code revision.

Harry Lemos has had to go to the hospital. Vice-President George Quamby is keeping in touch with the situation. We sure miss you, Harry, so hurry back!

ABC's—the fundamentals upon which the Producers' Council is based are 1) affiliation with the AIA, 2) Bulletin to the technical profession, and 3) last but not least, Council chapters.

The job of making the whole program tick depends upon the relationships developed by the local chapters with the local architects. That's fundamental, and that's where we come in.

Joint Institute-Council Technical Committee, formed at the suggestion of Raymond J. Ashton, President of the A.I.A. The Committee consists of three members from the Institute and the Council.

On the Agenda are Dimensional Coordination (Modular Planning) Building Codes and Bidding Practices indicating the importance of these propositions.

Some Misconceptions have developed about the proposed new bidding practice. Two important questions seem to need clearing up.

1. Does the proposed procedure aim to limit competition;
2. Is it intended that brand names shall be substituted where products are now specified by standard specifications in which no make of product is named.

The answer to both questions is NO. The new procedure in no way prevents the use of standard specifications in which no product is named by brand. Competition is assured rather than limited. All that happens is that the "or equal" double talk which tends to do just the opposite, is eliminated. It just means that the bidder "calls his shots" in advance.

IF you have not been instrumental in starting at least one architect or engineer on a post-war job by this time you are hitch-hiking on the future. Better get busy!

USE QUALITY PRODUCTS — CONSULT AN ARCHITECT

POST-WAR PLANNERS URGE SIMPLIFIED BUILDING CODES

Need of changes to building codes in anticipation of post-war planning, was emphasized at a recent luncheon meeting of architects, builders and government officials held in San Francisco under the auspices of the Pacific Coast Building Officials conference.

City Planning Engineer William E. Alworth of Oakland discussed building codes and city planning in general and emphasized how little the public seems to realize that our building codes are intended for their protection. Especially is this true of the home builder. Everything that is built should require a building permit, even for such seemingly small matter as a fence.

"Legislation to permit cities to enforce high standards and to do something about the slum conditions, is needed. Redevelopment should concern our building departments and city building inspectors. New codes are badly needed. Many in use are 15 and 20 years old and are obsolete. Such an advance as prefabrication is not properly classified, if at all, in existing codes."

Architect Vincent G. Raney voiced the opinion that our building codes should be based on minimum regulation insofar as health, safety and morals are concerned. Simplification is sorely needed, he said. Provision for new materials (steel for one) is needed. Fire protection requirements should be the same, regardless of locality. Some day the remotely located theater on the outskirts will be in the highly zoned area as the area grows. Then you will have a violation unless all regulations as to fire protection are standardized.

"The more you cater to any trade or complicate the code with needless detail, the tougher it is to try and enforce that code. Keep it simple and you can enforce it. I believe in no exceptions whatever. I don't think you will find a theater in all California that provides 30 cubic feet of air per person, as provided for in most codes. A good ventilation setup provides 15 cubic feet of air per person with 10 recirculated."

John G. Little, superintendent of building inspection, City and County of San Francisco, thought architects should have a standing committee on building code matters and iron out difficulties and points of law with the city building departments. The Government, he said, is glad to comply with codes but refuses to ask for building permits, let alone pay for them. It refuses to recognize the fact that a service is being performed and is opposed to the publicity that usually follows the granting of a building permit. In Los Angeles they have only recently passed a new law which requires both Government and the State to take out building permits, even where the Government owns the land.

PLAN BUILDING INDUSTRY CENTER

Establishment of a Building Industry Center for information on building materials and equipment is being undertaken by A. C. Williams, architect, and director of the Center. Its principal purpose for the duration will be the systematic distribution of catalogs and specification data to the individuals, firms and government departments in the nine counties of the San Francisco Bay area that are supervising or engaged in the production of plans and specifications for war and post-war construction or are, or will be, purchasing or installing materials for such work. This is to be done through a filing service wherein the catalogs and data are give A.I.A. Standard Filing System index numbers, bound looseleaf into divisions of construction work, provided with an index distributed and subsequently kept up to date through periodic replacements.

Endorsement of the program in principle has been obtained from the Northern California Chapter, A.I.A., and the State Association of California Architects, Northern Section, through its public relations committee.

The western business world is well aware that today's problems and opportunities will be multiplied when consumer demand shifts from war supplies to civilian requirements. Production of the kind of buildings the post-war world will deserve in view of the present sacrifices being made for it, is the problem confronting the building industry. Its opportunity is that of supporting a demand for a higher standard of building which is synonymous with a higher standard of living.

Plans for the Building Industry Center call for its establishment now to assist through its services in the planning job already evidencing itself. As the emphasis swings from war production to peace-time production, it is intended that the Center should grow into a handsome and appropriate central headquarters in the heart of San Francisco for a comprehensive materials and equipment display with adjoining technical library, gallery for professional exhibits, assembly hall and offices for the various organizations within the building industry.

SON SUCCEEDS FATHER

The directors of Payne Furnace & Supply Company, Inc., peacetime heating manufacturers now devoted to war production, announce the election of new officers as follows: President, El Roy L. Payne, former vice-president and general manager, succeeding the late Daniel W. Payne, his father; vice-president, John H. Keber, former manager of the wholesale sales division, treasurer, Joe H. Wilson; secretary, Ruby M. Sorber.

ARCHITECT AND ENGINEER

Estimator's Guide

Giving Cost of Building Materials, Etc.

AMOUNTS GIVEN ARE FIGURING PRICES AND ARE MADE UP FROM AVERAGE QUOTATIONS FURNISHED BY MATERIAL HOUSES TO SAN FRANCISCO CONTRACTORS. 2½% SALES TAX ON ALL MATERIALS BUT NOT LABOR

All prices and wages quoted are for San Francisco and the Bay District. There may be slight fluctuation of prices in the interior and southern part of the state. Freight cartage, at least, must be added in figuring country work.

BONDS—Performance—50% of contract.

Labor and materials—50% of contract.

BRICKWORK—

Common Brick—Per 1M laid—$50.00 to $60.00 (according to class of work).

Face Brick—Per 1M laid—$120 to $150 (according to class of work.)

Brick Steps—$1.60 per lin. ft.

Brick Veneer on Frame Bldg.—Approx. $1.30 per sq. ft.

Common Brick—$19.00 per M, truckload lots, f.o.b. job.

$19.00 per M, less than truckload, plus cartage.

Face Brick—$40 to $80 per M, truckload lots, delivered.

Cartage—Approx. $4.00 per M.

BUILDING PAPER—

1 ply per 1000 ft. roll	$3.50
2 ply per 1000 ft. roll	5.00
3 ply per 1000 ft. roll	6.25
Brownskin, Standard, 500 ft. roll	5.00
Sisalkraft, 500 ft. roll	5.00
Sash cord com. No. 7	$1.20 per 100 ft.
Sash cord com. No. 8	1.50 per 100 ft.
Sash cord spot No. 7	1.90 per 100 ft.
Sash cord spot No. 8	2.25 per 100 ft.

Sash weights, cast iron, $50.00 ton.
Nails, $3.42 base.
Sash weights, $45.00 per ton.

CONCRETE AGGREGATES—

The following prices net to Contractors unless otherwise shown.

Gravel, all sizes—
$1.95 per ton at Bunker; delivered $2.50

	Bunker	Del'd
Top Sand	$1.90	$2.50
Concrete Mix	1.90	2.45
Crushed Rock, ¼" to ¾"	1.90	2.50
Crushed Rock, ¾" to 1½"	1.90	2.50
Roofing Gravel	2.25	2.80
River Sand	2.00	2.45

Sand—

River Sand	2.00	2.45
Lapis (Nos. 2 & 4)	2.85	3.15
Olympia (Nos. 1 & 2)	2.85	3.10
Del Monte White	.84c per sack	

Cement—

Common (all brands, paper sacks), carload lots, $2.42 per bbl. f.o.b. car; delivered $2.72.

Cash discount on carload lots, 10c a bbl., 10th Prox.; less than carload lots $3.20 per bbl. f.o.b. warehouse or delivered.

Cash discount 2% on L.C.L.

Atlas White, Calaveras White, Medusa White — 1 to 100 sacks, $2.50 sack warehouse or del.; $7.65 bbl. carload lots.

Forms, Labors average $200.00 per M.

Average cost of concrete in place, exclusive of forms, 35c per cu. ft.; $10 cu. yd.; with forms, 60c.

4-inch concrete basement floor ..... 30c per sq. ft.

Rat-proofing 7½c

Concrete Steps ..... $1.25 per lin. ft.

DAMPPROOFING and Waterproofing—

Two-coat work, $3.50 per square.

Membrane waterproofing—4 layers of saturated felt, $7.00 per square.

Hot coating work, $2.50 per square.

Meduse Waterproofing, $3.50 per lb. San Francisco Warehouse.

Tricocel waterproofing.
(See representative.)

ELECTRIC WIRING—$12 to $15 per outlet for conduit work (including switches).

Knob end tube average $3.00 per outlet. (Available only for priority work.)

ELEVATORS—

Prices vary according to capacity, speed and type. Consult elevator companies. Average cost of installing a slow speed automatic passenger elevator in small four story apartment building, including entrance doors, about $6500.00.

EXCAVATION—

Sand, 60 cents; clay or shale $1 per yard. Teams, $12.00 per day.

Trucks, $22 to $27.50 per dey.

Above figures are an average without water. Steam shovel work in large quantities, less; hard material, such as rock, will run considerably more.

FIRE ESCAPES—

Ten-foot galvanized iron balcony, with stairs, $150 installed on new buildings; $160 on old buildings.

FLOORS—

Composition Floor, such as Magnesite, 33c to 50c per square.

Linoflor—2 gages—$1.25 to $2.75 per sq. yd.

Mastapay—90c to $1.50 per sq. yd.

Battleship Linoleum—available to Army and Navy only—⅛"—$1.75 sq. yd. 3/16"—$2.00 sq. yd.

Terazzo Floors—50c to 70c per square.

Terezzo Steps—$1.75 per lin. ft.

Mastic Wear Coat—according to type—20c to 35c.

Hardwood Flooring—
Standard Mill grades not available.
Victory Oak—T & G

25/32 x 2¼"	$143.25 per M. plus Cartage
½ x 2"	122.00 per M. plus Cartage
½ x 1½"	113.50 per M. plus Cartage

Prefinished Standard & Better Oak Flooring

25/32 x 3¼"	$180.00 per M. plus Cartage
½ x 2½"	160.50 per M. plus Cartage

Maple Flooring

25/32" T & G Clear	$160.50 per M. plus Ctg.
2nd	153.50 per M. plus Ctg.
3rd	131.25 per M. plus Ctg.

Floor Layers' Wage, $1.50 per hr.

GLASS—

Single Strength Window Glass	20c per □ ft.
Double Strength Window Glass	30c per □ ft.
Plate Glass, under 75 sq. ft.	$1.00 per □ ft.
Polished Wire Plate Glass	1.40 per □ ft.
Rgh. Wire Glass	.34 per □ ft.
Obscure Glass	.27 per □ ft.

Glazing of above is additional.
Glass Blocks ..... $2.50 per □ ft. set in place

HEATING—

Average, $1.90 per sq. ft. of radiation, according to conditions.

Werm air (gravity) average $48 per register.

Forced air, average $68 per register.

IRON—Cost of ornamental iron, cast iron, etc., depends on designs.

LUMBER — All lumber at O.P.A. ceiling prices—

No. 1 Common	$49.00 per M
No. 2 Common	47.75 per M
Select O. P. Common	52.75 per M

Flooring—

	Delvd.
V.G.-D.F. B & Btr. 1 x 4 T & G Flooring	$80.00
C 1 x 4 T & G Flooring	75.00
D 1 x 4 T & G Flooring	65.00
D.F.-S.G. B & Btr. 1 x 4 T & G Flooring	61.00
C 1 x 4 T & G Flooring	59.00
D 1 x 4 T & G Flooring	54.00
Rwd. Plastic—"A" grade, medium dry	82.00
"B" grade, medium dry	78.50

Plywood—

	Under $200	Over $200
"Plyscord"—3/8"	$49.50	$47.55
"Plywall"—1/4"	45.15	43.30
3 ply—2/s—1/4"	48.55	46.60
"Plyform"—5/8"—		
Unoiled	126.50	121.45
Oiled	127.90	122.75

Above prices delivered if quantity is sufficient to warrant delivery.

Shingles (Rwd. not available)—

Red Cedar No. 1—$6.75 per square; No. 2, $5.75; No. 3, $4.45.
Average cost to lay shingles, $3.00 per square.
Cedar Shakes—Tapered: 1/2" to 3/4" x 25"—$8.95 per square.
Resawn: 3/4" to 1 1/4" x 25"—$10.65 per square.
Resawn: 3/4" to 1 1/4" x 25"—$10.65 per square.
Average cost to lay shakes, $4.00 per square.

MILLWORK—Standard.

O. P. $100 per 1000. R. W. rustic $100.00 per 1000 (delivered).
Double hung box window frames, average with trim $6.50 and up, each.
Complete door unit, $10.00.
Screen doors, $3.50 each.
Patent screen windows, 25c a sq. ft.
Cases for kitchen pantries seven ft. high, per lineal ft., $9.00 each.
Dining room cases, $9.00 per lineal foot.
Rough and finish about 80c per sq. ft.
Labor—Rough carpentry, warehouse heavy framing (average), $40.00 per M.
For smaller work average, $40.00 to $55.00 per 1000.

MARBLE—See Dealers)

PAINTING—

Two-coat work	per yard 50c
Three-coat work	per yard 70c
Cold water painting	per yard 10c
Whitewashing	per yard 8c

PAINTS—

Two-coat work	50c per sq. yd.
Three-coat work	70c per sq. yd.
Cold water painting	per yard 10c
Whitewashing	8c per sq. yd.

Turpentine $1.03 per gal. in drum lots. $1.08 per gal. in 5-gal. containers.
Raw Linseed Oil—not available.
Boiled Linseed Oil—$1.38 per gal. in drums. Available only to work with high priority—$1.48 per gal. in 5-gal. containers.
Use replacement oil—$1.86 per gal. in 1-gal. containers.
Replacement Oil—$1.20 per gal. in drums. $1.30 per gal. in 5-gal. containers.
A deposit of $6.00 required on all drums.

PATENT CHIMNEYS—

6-inch	$1.20 lineal foot
8-inch	1.40 lineal foot
10-inch	2.15 lineal foot
12-inch	2.75 lineal foot

PLASTER—

Neat wall, per ton delivered in S. F. in paper bags, $17.60.

PLASTERING (Interior)—

	Yard
3 Coats, metal lath and plaster	1.50
Keene cement on metal lath	1.80
Ceilings with 3/4 hot roll channels metal lath (lathed only)	1.20
Ceilings with 3/4 hot roll channels metal lath plastered	2.20
Single partition 3/4 channel lath 1 side (lath only	1.20
Single partition 3/4 channel lath 2 inches thick plastered	3.20
4-inch double partition 3/4 channel lath 2 sides (lath only)	2.20
4-inch double partition 3/4 channel lath 2 sides plastered	3.85
Thermax single partition; 1" channels; 2 1/4" overall partition width. Plastered both sides	3.30
Thermax double partition; 1" channels; 4 3/4" overall partition width. Plastered both sides	4.40
3 coats over 1" Thermax nailed to one side wood studs or joists	1.65
3 coats over 1" Thermax suspended to one side wood studs with spring sound isolation clip	1.90

Note—Channel lath controlled by limitation orders.

PLASTERING (Exterior)—

	Yard
2 coats cement finish, brick or concrete wall	$1.00
3 coats cement finish, No. 18 gauge wire mesh	2.00

Lime—$3.00 per bbl. at yard.
Processed Lime—$3.10 bbl. at yard.
Rock or Grip Lath—3/8"—20c per sq. yd.
1/2"—19c per sq. yd.

Composition Stucco—$1.80 to $2.00 sq. yard (applied).

PLUMBING—

From $100.00 per fixture up, according to grade, quantity and runs.

ROOFING—

"Standard" tar and gravel, 4 ply—$8.00 per sq. for 30 sqs. or over.
Less than 30 sqs. $9.50 per sq.
Tile, $30.00 to $40.00 per square.
Redwood Shingles, $7.50 per square in place.

5/2 #1-16" Cedar Shingles, 4 1/2" Exposure	$8.00 square
5/8 x 16"—#1 Cedar Shingles, 5" Exposure	$9.00 square
4/2 #1-24" Royal Shingles, 7 1/2" Exposure	$9.50 square

Re-coat with Gravel $4.00 per sq.
Asbestos Shingles, $23 to $28 per sq. laid.

1/2 x 25" Resawn Cedar Shakes, 10" Exposure	$10.50
3/4 x 25" Resawn Cedar Shakes, 10" Exposure	11.50
1 x 25" Resawn Cedar Shakes, 10" Exposure	12.50

Above prices are for shakes in place.

SHEET METAL—

Windows—Metal, $1.75 a sq. ft.
Fire doors (average), including hardware $2.00 per sq. ft.

SKYLIGHTS—(not glazed)

Copper, 90c sq. ft. (flat).
Galvanized iron, 40c sq. ft. (flat).
Vented hip skylights 60c sq. ft.

STEEL—STRUCTURAL (None available except for defense work).

$150 ton (erected), this quotation is an average for comparatively small quantities. Light truss work higher. Plain beams and column work in large quantities $140 per ton.

STEEL REINFORCING (None available except for war work).

$150 to $200 ton, set.

STONE—

Granite, average, $6.50 cu. foot in place.
Sandstone, average Blue, $4.00. Boise, $3.00 sq. ft. in place.
Indiana Limestone, $2.80 per sq. ft. in place.

STORE FRONTS (None available).

TILE—

Ceramic Tile Floors—70c to $1.00 per sq. ft.
Cove Base—$1.10 per lin. ft.
Glazed Tile Wainscot—$1.25 per sq. ft.
Asphalt Tile Floor 1/8" & 3/16"—$ .18 to $ .35 per sq. ft. Light shades slightly higher.
Cork Tile—$ .40 to $ .75 per sq. ft.
Mosaic Floors—see dealers.
Lino-Tile, $ .35 to $ .75 per sq. ft.

Wall Tile—

Glazed Terra Cotta Wall Units (single faced) laid in place—approximate prices:

2 x 6 x 12	$1.10 sq. ft.
4 x 6 x 12	1.25 sq. ft.
2 x 8 x 16	1.20 sq. ft.
4 x 8 x 16	1.40 sq. ft.

VENETIAN BLINDS—

40c per square foot and up. Installation extra.

WINDOWS—STEEL—

30c per square foot, $5 for ventilators.

SOUTHERN CALIFORNIA CHAPTER

The following members of Southern California Chapter, A.I.A., were in the Armed Forces as of June 1944:

Robert Field, Jr., Charles E. Fry, G. B. Kaufmann, Graham Latta, William S. McCay, Henry C. Newton, Ben H. O'Connor, D. B. Parkinson, H. G. Spielman, Burnett C. Turner, David J. Witmer, Frank Gruys, Whiting S. Thompson, George V. Whisenand, Gerald H. Bense, Milton Caughey, Richard L. Cook, Will M. Garton, Jr., Harry Harmon, Allan S. Hartshorn, John R. Hollingsworth, Ross R. Hutchason, Robert Johnson, Delbert E. Long, Alfred J. Luthi, Denver Markwith, Jr., Robert E. McClain, Thomas Merchant, Stanley C. Meston, James Moreland, Jr., Basil G. Pantages, Roland L. Russell, Savo M. Stoshitch, Carleton Winslow, Jr.

Meeting with the Chapter for the first time since his arrival in Los Angeles, Charles Eliot, III, director of the Haynes Foundation, spoke at the June meeting on the development of the individual communities which make up metropolitan Los Angeles. On display was an exhibit from the New York Museum of Modern Arts, "Planning Your Neighborhood." Clarence Stein participated in the design of this exhibit. The meeting was in charge of Welton D. Becket, chairman of the Chapter Regional Planning Committee, which is making a study of the American version of town and country planning and is developing among its members a fine sense of the inter-dependence of individual architectural works.

WORK FOR AMERICAN ENGINEERS

China with a fourth of the world's population and abundant natural resources, but yet barely subsisting, looks to American engineers as the "key men," to help shape its industrialization and reconstruction after the war, K. Y. Chen, assistant chief of the Far Eastern Division, United Nations Relief and Rehabilitation Administration, Washington, D. C., said at a luncheon at the semi-annual meeting of the American Society of Mechanical Engineers.

He said "At least ten million skilled men must be trained. You are worrying about postwar unemployment and finding jobs for your boys coming home, while we Chinese with so many industries to be developed will have a hard time finding experienced men to work.

"We have a gigantic task to perform. We need outside assistance. You will consciously or unconsciously, directly or indirectly, play important parts in the postwar reconstruction and industrialization of China in a more important role than you perhaps realize. You can offer your engineering experience, accomplishment, research facilities. You can furnish your best suitable and yet reasonable equipment to China. You can help to train our young engineers and technicians in your factories, drafting rooms, laboratories and you can help to train them in China."

MORE KRAFTILE EXECUTIVES

J. B. Crawford, vice-president in charge of sales for the Kraftile Company, announces the promotion of George L. Smith, to the newly created position of assistant sales manager. Mr. Smith will have charge of sales of Kraftile structural wall units, acid brick, Nukem acid-proof products and Minwax waterproofings, caulking compounds, protective coatings, wood finishes and waxes.

Mr. Crawford also announces the addition of George E. Ross, Sr., to the Kraftile organization. Mr. Ross, who will specialize in the Marine field of the company's activities, is a graduate of the U. S. Naval Academy at Annapolis.

1944 BUILDING TRADES WAGE SCALES (JOB SITE) NORTHERN CALIFORNIA

Six- and seven-hour day eliminated on all Government Work. A. F. L. - O. P. M. Agreement calls for eight-hour day.

NOTE: Predeterminations by the Department of Labor, as of July 1 (the wage-freezing date) have not yet been made in all of the counties listed. The wage scales shown are those being paid and in effect mostly by agreement between employers and their union.

CRAFT	San Francisco	Alameda and Contra Costa	Fresno	Marin	Sacramento	San Jose	San Mateo	Vallejo	Stockton
ASBESTOS WORKERS	1.50	1.50	1.25	1.50	1.50	1.25	1.50	1.50	1.25
BRICKLAYERS	1.87½	1.87½	1.75	1.87½	1.75	2.00	1.79-1/6	1.75	1.50
BRICKLAYERS, HODCARRIERS	1.40	1.40	1.05	1.40	1.05	1.50	1.35	1.50	1.14
CARPENTERS	1.50	1.50	1.25	1.43¾	1.37½	1.37½	1.43¾	1.50	1.37½
CEMENT FINISHERS	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
ELECTRICIANS	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70
ELEVATOR CONSTRUCTORS	1.75½	1.75½	1.75½	1.75½	1.75½	1.75½	1.75½	1.75½	1.75½
ENGINEERS: MATERIAL HOIST	1.50	1.50	1.25	1.50	1.37½	1.62½	1.50	1.37½	1.25
PILE DRIVER	1.75	1.75	1.60	1.75	1.75	1.75	1.75	1.75	
STRUCTURAL STEEL	1.75	1.75	1.60	1.75	1.75	1.75	1.75	1.75	1.60
GLASS WORKERS	1.40	1.40	1.12½	1.40	1.12½	1.21	1.40	1.40	
IRONWORKERS: ORNAMENTAL	1.60	1.50	1.60	1.50	1.60	1.31¼	1.50	1.50	
REINF. RODMEN	1.50	1.50	1.60	1.50	1.50	1.60	1.50	1.50	1.25
STRUCTURAL	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.37½
LABORERS: BUILDING	1.00	1.00	.90	.87½	.95	.90	.93¾	.90	.90
CONCRETE	1.00	1.00	.90	.87½	.95	.90	.93¾	.95	1.00
LATHERS	1.75	1.75	1.50	1.75	1.60	1.75	1.75	1.75	1.75
MARBLE SETTERS	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
MOSAIC & TERRAZZO	1.25	1.25	1.12½	1.25	1.15-5/8	1.12½			
PAINTERS	1.50	1.50	1.28-4/7	1.50	1.43	1.50	1.42-6/7	1.64-2/7	1.37½
PILEDRIVERS	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54
PLASTERERS	1.75	1.83½	1.75	1.75	1.75	2.00	2.00	1.75	1.83-1/3
PLASTERERS' HODCARRIERS	1.50	1.60	1.40	1.50	1.18¾	1.50	1.75	1.50	1.50
PLUMBERS	1.70	1.70	1.53-1/8	1.70	1.68¾	1.62½	1.70	1.70	1.50
ROOFERS	1.50	1.50	1.25	1.37½	1.37½	1.37½	1.25	1.37½	1.37½
SHEET METAL WORKERS	1.50	1.50	1.50	1.50	1.50	1.50	1.37½	1.50	1.50
SPRINKLER FITTERS	1.58	1.58	1.53-1/8	1.70	1.68¾	1.62½	1.70	1.70	1.50
STEAMFITTERS	1.75	1.75	1.53-1/8	1.70	1.68¾	1.62½	1.50	1.70	1.50
STONESETTERS (MASONS)	1.87½	1.87½	1.50	1.75	1.75	1.50	1.75	1.75	1.50
TILESETTERS	1.50	1.50	1.37½	1.50	1.37½	1.50	1.50	1.50	1.37½

Prepared and compiled by
CENTRAL CALIFORNIA CHAPTER, ASSOCIATED GENERAL CONTRACTORS OF AMERICA
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IN THE NEWS

COLONY GARDENS—A NEW VENTURE

A colony garden project at Annadale, Staten Island, sponsored by the Danish American Women's Association, points the way to an era in which garden plots with their many benefits will be within economic and physical reach of all city workers, according to Dr. Edwin Sharp Burdell, director of The Cooper Union.

Dr. Burdell, former dean of humanities at Massachusetts Institute of Technology, and long active in housing and city planning, characterized the Staten Island undertaking as a "practical scheme for carrying out a highly idealistic concept." He pointed out that the association has placed a garden plot "really within the means of the industrial worker" by purchasing an acre and a half of good garden land near a bathing beach on the Lower Harbor, and dividing it into lots which have been made available to the fourteen original participants at a cost per lot of two shares of stock at $25 each.

Aside from a $5 initiation fee, Dr. Burdell said, assessments for costs of incorporation, surveying the land and meeting the first tax installments have been kept to $70 a lot, so that the total cost per family has been only $125.

Citing the government's appeal for twenty million victory gardens this summer, or almost one for every American family — urban as well as rural — Dr. Burdell said that heretofore there has been "no widely available scheme whereby the millions of families living in city tenements the year round can find an opportunity to cultivate a garden."

Nevertheless, he continued, city dwellers' need for such facilities is great, even in peacetime, for other purposes besides growing food.

"They need an opportunity," he declared, "to join with other like-minded individuals and families in some joint endeavor which has meaning and dignity, that gives an outlet not only to pent-up physical energy but to stifled desires for neighborliness, for chatting over the back fence, for friendly co-operation."

A method of providing this opportunity has been in operation in Denmark for sixty years, with the result that, through co-operative effort, nearly 100,000 Danes now have small plots of ground outside their cities in which to find rest and relaxation during the summer months, at a capital outlay which any industrial worker can afford, Dr. Burdell said.

ULRICH WELCOMED HOME

At an informal meeting of the Structural Engineers' Association of Northern California, July 11, Frank Ulrich, secretary-treasurer, was given a warm welcome back after having completed a 25,000-mile official trip by air to South America, Central America and Mexico. At the same meeting, Bill Adrian showed a reel of colored pictures taken by him during his recent trip to Mexico with Mrs. Adrian.

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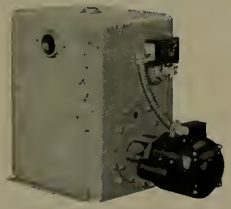

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POST-WAR BUILDING COSTS

Reduction of post-war building costs through dimensional coordination is promised by J. W. Follin, managing director of the Producers' Council, which is sponsoring the idea jointly with the American Institute of Architects, under the auspices of the American Standards Association.

The project provides a means of eliminating waste in construction by specifying standard sizes of building products which can be utilized in a finished structure with a minimum amount of cutting and fitting, the statement pointed out.

"Adoption of dimensional coordination on an industry-wide basis means simplification of design, greater speed in construction, reduction in the size of inventories which must be carried by manufacturers and distributors of building products, and substantial savings in both materials and labor, all of which ultimately will contribute to lower construction costs," Follin stated.

"However, the project will in no way tend to standardize structural design. It merely is a long-needed plan for making sure that individual building products are proportioned with adequate regard for the sizes of other products with which they must fit in the completed building. The result will be to narrow down the great range of slightly differing dimensions found in similar materials and equipment.

"The masonry standards which have just been issued by Max H. Foley, New York architect who is chairman of the ASA committee guiding the project, will be followed shortly by proposed standards fixing the dimensions of brick and tile units, and of concrete masonry units conforming to the standard dimensions of masonry to be established.

"The ASA Sectional Committee A62 which is advocating the project contains representatives of about 40 architectural, engineering, building industry, and governmental groups. Nine sub-committees are at work studying the application of coordination to other major types of building materials, utilizing the standard 4-inch module set forth in the proposed

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standard basis for coordination of all building products previously issued for industry discussion.

"In view of the fact that the coming reconversion period, when industry is retooling for peacetime production, offers a highly favorable opportunity for producers to change over to modular design with minimum expense or interruption to production, every effort is being made to speed up the general adoption of the plan in the pre-armistice period.

"It is the hope of the sponsors of the project that a substantial proportion of post-war construction can be designed and carried out on the coordination basis, thus making an immediate and important contribution to better and more economical construction."

BASIC GLASS FIBERS

In the belief that they may assist manufacturers in the development of new post-war materials, glass manufacturers announce availability of seven basic types of glass fibers. The fibers are offered as raw material for use with other fibers and with plastics and cements, and for use in various types of industrial and chemical process equipment.

Such possible applications of glass fibers have been by no means completely explored, the announcement states, and it is realized that the number is so great that the manufacturers cannot hope to develop or even adequately explore them all.

Fiberglas fibers are now being used in combination with plastics where they serve as reinforcement for light-weight, high-strength structural parts for aircraft. The Feberglas-plastic parts can be molded at low pressures, reducing fabrication costs and man-hours. Experience indicates the adaptability of the fibers to similar use as reinforcement for certain cements and plaster-like materials where their high tensile strength may give improved physical properties to the resulting product.

Another potential field for use pointed to in the announcement is the admixture of the glass fibers with other fibers, as in felts and papers.

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AUGUST, 1944

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WAR BONDS to Have and to Hold

ARCHITECT AND ENGINEER

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• ARCHITECT AND ENGINEER

Vol. 158 No. 2

FRED W. JONES, Editor
MARK DANIELS, Associate Editor
MICHAEL GOODMAN, Post-War Planning
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*In the Service

★

AUGUST

COVER: A state-financed housing project, Sewall Smith, Chief Architect

PHOTOGRAPHY: P. A. Dearborn (Sewall Smith's houses). Gabriel Moulin Studios (Site of World Trade Center, San Francisco)

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★

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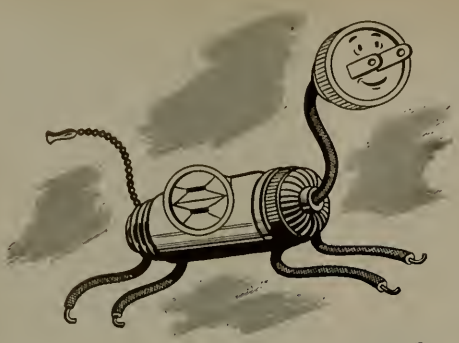

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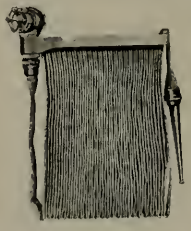

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RUNNING FIRE — by MARK DANIELS

• *MURDERS IN THE RUE MORGUENTHAU*

Thoughts, Ambitions, Words can be murdered as well as men and, since so many of them travel down the same lane, why not give that alley a name? The income tax forms alone are killing us off at a rate comparable with the work of the Nazis. Not the tax itself, but the work necessary to arrive at any reasonable understanding of it. Nice quiet men and women, after a fortnight's struggle with those forms, blanks and contradictory statements, have been known to run about biting anything that looked like the Secretary of the Treasury. And English is not the only thing that is murdered in the Rue Morguenthau.

For instance, there are those who had pictured a certain kind of evasion that might be accomplished by merely boosting a salary five or ten thousand a year. After settling down and complacently ordering a couple more motor cars these men found themselves up against the Salary Stabilization Act and began mumbling incoherently or even expiring on the spot. It is a common experience to be stopped in the street by a comparative stranger and asked if you know anything about contract terminations, or re-negotiations, or certain rules of the Procurement Division. If you say "No" to him he will probably ask, "Well, who in hell does?"

Soon there will have to be appointed some sort of Monsieur Dupin to solve these mysteries but he will have to be more than a linguist for, as I said before, English is not all that is murdered in the Rue Morguenthau.

• *BUFANO BUFFOONERY*

(The ARCHITECT AND ENGINEER has been asked to tell its readers something about the Bufano racket that is going on in the City Hall with the San Francisco Art Commission. It hardly seems worth while, but "we aim to please.")

(Editor's Note: Mr. Daniels is a member of the Art Commission, so what follows should be authentic.)

With his three points, the recently named Art Commissioner made a three point landing in the broad field of publicity, as might have been expected (and probably was). These three points were a little more than a regurgitation of the often chewed cud of contention over music for the masses, planting street trees in San Francisco, and the decoration and ornamentation of municipally and government owned buildings.

Mr. Bufano's so-called three points had been threshed out by the Art Commission in one form or another, many, many times before. His point No. 2, the planting of trees on the streets of the city, was identically the same as had been brought up periodically for the past forty years, but point No. 1 differed from the usual in that it contained a more vicious jab than usual at the present administration of the San Francisco Symphony concerts. Point No. 3 included a proposal to delegate authority, not given by the charter, to the Art Commission to select the artists to do the work of decorating public buildings.

Mr. Bufano's point No. 1 majored upon the establishment of a series of forty concerts per annum by the Symphony Orchestra for fifty cents per ticket, at a total cost of approximately $240,000. This money was to be raised by increasing the present tax of one-half a cent to three cents, solely for the purpose of giving more and cheaper concerts. It gave no thought to how this was to be done, whether it was timely, or whether the present growing and orderly development of the program for the expenditure of the one-half cent allowed by the charter, was all that was needed or could be expected. Nope! The Balineseans had it all over us. They were all musicians. They were happy, religious and lived on an island of perpetual youth. Let's tax the three cents instead of one-half a cent and catch up with those happy people on "the island of perpetual youth."

Point No. 2 brought nothing new before the Art Commission. Every city plan that has been submitted or considered since the Burnham plan or before has dwelt on the desirability of planting trees along the streets. For years the Art Commission has urged the adoption of a definite and well studied plan for street tree planting and other landscape treatment for the city, but since the Commission has no initiative powers it must continue to suggest and urge. While nothing new was presented, the naive statement that by planting street trees and "opening up more parks" we would make San Francisco "the most beautiful city in America" shed a light on the problem that was heightened considerably by the ingenuous list of trees submitted, which included a variety of desert Cat Claw.

In the presentation of point No. 3, details of the sponsoring and appointing of artists by the Commission soon involved procedure which was submitted to the City Attorney who ruled unfavorably. Other points in procedure were objected to by the American Institute of Architects and similar organizations. Still others led to discussions too lengthy to be taken up here. Suffice it to say that the Commission as a whole rejected the plan of point No. 3 as it was presented, and asked for a more detailed report.

The principal difficulty seems to be a misconception of the duties and powers of the Art Commission. The Commission has NO INITIATIVE powers except in rare instances. Apparently the framers of the charter conceived the Commission as a body to whom all works of art, or work pertaining thereto, would be submitted for approval before permits for execution could be issued. In other words, the duties, generally speaking, are those of judging the quality, character and propriety of the works of art submitted.

From the above it is apparent that the Art Commission went as far as it could to endorse the proposals of Mr. Bufano, even to the extent of repeating its past approvals and those of its predecessors.

• *USELESS LAWS*

If the only useless laws are those that cannot be enforced, many laws are put in that category that do not belong there. They are merely laws that ARE NOT enforced. Many people apparently consider the State legislation requiring so-called "earthquake proof" construction in school buildings as useless, when they are merely not enforced. At least, that is the deduction found in the report of George B. Martin, a graduate student at the University of California. In his report of an investigation of State school buildings, he states that only 8 per cent of State's

(Turn to Page 6, Second Column)

MODERN DRAWINGS REFLECT DRAFTSMANSHIP OF OUR TIME

"Modern Drawings," a circulating exhibition from the Museum of Modern Art in New York, on display this month at the California Palace of the Legion of Honor here, comprises 124 drawings in all media—pencil, pen, silverpoint, crayon, sanguine, charcoal and pastel—and represents the three main types of draftsmanship suggested by Monroe Wheeler, the museum's director of exhibitions and publications, and John Rewald, noted writer on modern art, in the museum catalog, "Modern Drawings." These are: 1) the occasional sketch which an artist makes to register momentary impressions and saves for future references; 2) the preparatory study, a more conscientious drawing which gradually approaches the form of final execution in the artist's chosen medium; 3) the finished drawing, requiring rare virtuosity and imagination, comparable in intent and execution to a completed work in any medium.

Condensed from a large comprehensive show at the Museum of Modern Art, the exhibition is not a final survey, but a general view of the draftsmanship of our time with its background in the previous century. Although drawing today stems from a universal tradition which had its origin and flowering in the period of the Italian Renaissance, its immediate sources lie in the late 19th century. Many 19th century painters turned to the great Italian masters for inspiration, but their first point of departure lay in their evaluation of previous draftsmanship; they advocated the spontaneous quality and accidental beauty of a sketch or a preparatory study as an end in itself.

Considered as an art form, draftsmanship shows more homogeneity in any one period than the more ambitious media, such as painting or sculpture. Because most drawing is done either at random or as preparation for a work in another medium, individual differences of style and personality are less apparent. The artist's conception has not reached its fullest maturity. But because drawing is perhaps the most intimate expression of the artist's aim, this exhibition offers a provocative, if somewhat oblique, survey of the important movements in the modern period.

Among the earliest 19th century painters represented are Dogas, Renoir, van Gogh, Sourat, Toulouse-Lautrec and Cezanne. Realism, cubism, and abstract art, expressionism and fantasy in the 20th century are illustrated by an impressive gathering of contemporary masters. Among them are: Bennard, Utrillo, Berard, Ernst, Berman, Tcholitchew, Chirico, Dali, Kloo, Masson, Modigliani, Segonzac, Gris, Kokoshka, Miro and Kandinsky.

Matisse and Kandinsky deserve special consideration for theirs is the most original as well as the most contemporary contribution to 20th century draftsmanship. The least sketch of Matisse is final and the most carefully worked out composition has vigor and audacity. Picasso's inspired versatility is illustrated by five drawings and five preparatory studies from "Guernica," the most violently expressive and probably the greatest painting of modern times.

STUDY FOR THE WHITE PLUMES
By Henri Matisse, French Contemporary
A drawing lent by Henry M. McIlhenny of Philadelphia, to the comprehensive exhibition of Modern Drawings on view this month at the Legion of Honor Palace.

Several of the Americans included are Dickinson, Cassatt, Feininger, Pascin, Lovine, Sterne, Hartley, Gropper, Sheeler, Blume and Siporin. In addition, the exhibition offers a section devoted to sculptor's drawings.

"YANK" ILLUSTRATES THE WAR WITH DRAWINGS, CARTOONS AND PHOTOS

Original drawings, cartoons, and photographs published in the weekly issues of "Yank," Army magazine, are displayed at the San Francisco Museum of Art.

From Labrador, Guadalcanal, North Africa, England, Australia, India have come both serious and comic sketches and front-line photographs to illustrate the magazine which goes out to the armed forces of the United States all over the world. Its purpose is to entertain and inform, but the magazine has already developed a number of first-rate talents. Published by the War Departments Special Service Division, "Yank" is written, illustrated and edited solely by enlisted men, none above the rank of sergeant. This exhibition was assembled by James Thrall Soby, director of the Museum of Modern Art's Armed Services Program.

IN AN EVER CHANGING WORLD

Of special interest to local art lovers are the nineteen sketches by Sgt. Howard Brodie of San Francisco, who did illustrations for the S. F. Examiner for two years and was staff artist on the S. F. Chronicle for seven years before be entered the armed forces. Sgt. Brodie's sketches were made under fire at Guadalcanal and New Caledonia.

Among other enlisted men whose work is included in the exhibition are Sgt. Ralph Stein of New York, illustrator of the current best seller, "Its a Cinch, Private Finch;" Pvt. Martin Harris, formerly staff photographer for "P.M.;" Sgt. Douglas Borgstedt, Post script editor for the Saturday Evening Post at the time of his enlistment, and Cpl. Theodore Croyn III, formerly of the staff of the New York Herald Tribune and the New York bureau of the Associated Press.

FLETCHER MARTIN DRAWINGS SHOWN AT THE LEGION PALACE THIS MONTH

An excellent collection of Fletcher Martin water colors and drawings is being featured this month at the California Palace, Legion of Honor.

Martin was one of the artists commissioned by Life magazine to record scenes from the war. Several of these canvases are included in the current show as well as his famous pictures of sporting events and several portrait studies.

Fletcher Martin was born in 1904, the son of a country editor who ran newspapers in Idaho, Colorado and Washington. In 1922 he entered the United States Navy where he served four years, gaining a reputation as a boxer. He then lived in San Francisco for a while, working as a printer. He attended art lectures at night and became interested in print-making. In 1933, Martin, self-taught, had his first exhibition at the Fine Arts Gallery in San Diego. In 1934 he won the first prize at the All-California exhibition. Since then he has exhibited in the major national exhibitions, won many important commissions and is now instructor of advanced painting in oil and fresco at the University of Iowa. Examples of his work are owned by the Museum of Modern Art and the Metropolitan Museum of New York and the Los Angeles Museum.

HIGH PEAK, 1936 **Oil by Matthew Barnes**

This emotionally powerful painting by a young San Francisco artist was lent to the Museum of Modern Art for its exhibition of Romantic Painting in America, now showing at the San Francisco Museum of Art.

FRENCH ARCHITECTURAL TREASURES SUFFER FROM WAR'S RAVAGES

Once again the ancient architectural treasures of France have suffered the ravages and destruction of war. Pierre Jeannerat, French war correspondent with the British forces, urges that speedy action be taken to prevent irreparable losses to the art world. "Our heritage," he states, "is not inexhaustible, and we must act immediately to save as much as we can."

THE FORTUNE TELLER

By Gasparo Traversi (Ca. 1725-69)

Traversi never goes beyond a pleasant and amiable rendering of Venetian life. He depicts types rather than individuals and his humor is not free from sarcasm.

(Permanent collection, M. H. De Young Museum, San Francisco.)

Specialists are being sent with Allied forces to point out to commanding officers specific buildings, monuments, and works of art which are to be respected and, if possible, preserved. The Provisional Government of the French Republic has also appointed similar specialists. At present, however, the military authorities have other and more urgent concerns. Captain Daniel Lefarge, U. S. Army, now in Normandy, who has been working on the problems, reports that as soon as fighting ceases in each area, specialists will examine damages and try to remedy them.

JEWELRY AND FANS OF THE 19TH CENTURY INTRIGUE FAIR SEX

The present exhibition in its California department displays the best of the De Young collection of 19th century fans and jewelry. Included are graceful fans of the early Empire Period made of silk and decorated with gold sequins, tortoise shell or ivory; those of the early Victorian era, larger and of more complicated design, with costly mother-of-pearl handles, the paper fan revealing in its painted decoration the new interest for Rococo shepherds and shepherdesses; voluptuous and colorful feather and lace fans of the "Gay Nineties"—the development of 19th century style reflected in a single luxury accessory! This same development from the simple to the ornate is similarly traced in the jewelry of that century.

While the woman of fashion of the Empire period preferred to mount a choice cameo on a delicate gold disc, the Victorian lady's tastes were infinitely more elaborate, demanding a sentimental connotation as well. Whole sets of jewelry carved in coral or ivory, souvenirs from Italy describing scenes in mosaic, bracelets, ornaments and "gadgets" made from human hair were extremely popular. Visitors of the fair sex are continually surprised to discover in the Victorian gold pieces the very patterns from which modern costume jewelry is made. The exhibit will be on view through August.

JULIA BRENNER MEMORIAL EXHIBITION STRESSES IMPORTANCE OF TEXTILES

With the death of Mrs. Gustave Brenner, the De Young Museum has lost one of its most generous donors. Julia Brenner realized early the importance of a textile study collection as an integral part of a large art museum. For over fifteen years she traveled abroad searching for various types of materials which might serve as a stimulus and source of new ideas for weavers, designers and art students. The Memorial Exhibition at the De Young presents a cross-section of Mrs. Brenner's donations—silks, woolens and cottons, weavings prints and embroideries—from all continents. There are complete costumes from Palestine, rare 18th century bodices from Holland, richly embroidered jackets from India, luscious damasks and brocades from France and Italy. An entire collection of hand-woven woolens from Spain and the United States and a complete set of Scotch plaids offer innumerable suggestions for the modern weaver. One of the highlights of the exhibition is the group of printed cottons of the 18th and early 19th century from France, England and America. This special textile display remains at the De Young through August.

VERDIER SUCCEEDS FLEISHHACKER AS LEGION OF HONOR TRUSTEE

Paul Verdier has been elected president of the Board of Trustees of the California Palace of the Legion of Honor, to succeed Herbert Fleishhacker, who resigned the presidency after serving 20 years.

The California Palace of the Legion of Honor was built by the late A. B. Spreckels and his wife, Alma de Bretteville Spreckels, as a memorial to the 3600 California heroes, who lost their lives in World War I. The museum was presented to the City of San Francisco on Armistice Day, 1924.

Verdier, a trustee for several years, is president of the City of Paris in San Francisco and a leader in the city's French colony.

ART NOTES

A possible explanation for the peace that pervades the paintings of José Ramis, recently displayed in the East for the first time, is that they are the work of an artist who has achieved a well integrated personality by a well planned life. This gentle Catalan by birth and Californian by adoption, works at a craft for long enough to insure economic freedom to wander and paint for an equal period of time. He paints, not for sustenance but because he must. Furthermore, Ramis paints subjects that he knows. His 40 landscapes and figure studies catch the simple natives of South America and Mexico, going about their business of living and dying before Andean or tropical backdrops, with knowing naivete.

Ramis has exhibited in California museums from San Diego to San Francisco, where he has also had one-man shows at the Paul Elder Gallery.

The Dalzell Hatfield Galleries in Los Angeles take pride in picking winners among young artists, and giving them shows early in their careers. However, in the recent exhibition of the mature work of Clarence Hinkle, the process was reversed. This venerated California artist-teacher, and one-time student of William Chase, evoked lyrical appreciation from the press. Herman Reuter said in the Hollywood Citizen News: "I find myself thoroughly sold on the idea that eventually America will acknowledge to have produced few painters more noteworthy than Clarence Hinkle." On the same theme, H. L. Dugan wrote in the Oakland Tribune: "Out of tremendous explosions of paint, there appears, as if by magic, landscape of rare beauty."

* * *

RUNNING FIRE

(Continued from Page 3)

elementary and 25 per cent of the secondary schools had been inspected; and further, that some of those reconstructed had cost as high as 60 per cent of the original building cost. Had they been originally built according to requirements, they would have cost not more than 5 per cent more than they did.

Obviously this is a case of NON-enforcement of a good regulation. Also, it is sad to know that the architects, contractors and parents of school children had to learn it from a student at the University. Let us hope that we will have learned the conditions in time to have saved a few lives when the next quake comes.

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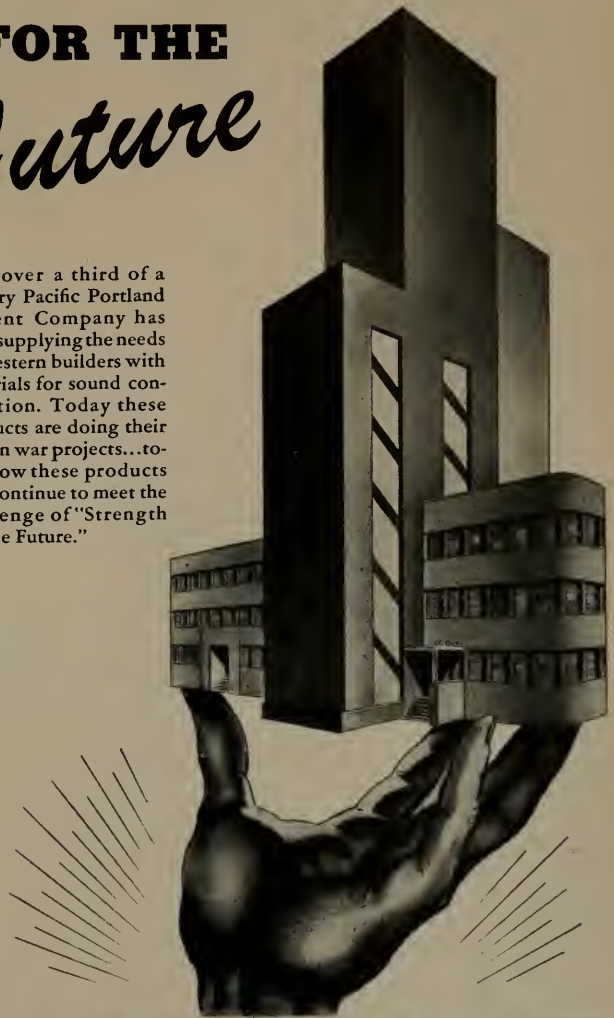

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UNIVERSITY OF CALIFORNIA

Post-war building of the University of California, on all its campuses, will total more than $27,500,000. Already appropriated by the Legislature, is $3,331,000, which will be available when conditions permit construction. At the recent special session of the Legislature, $24,525,000 was set aside for the University of California building program from post-war construction funds; appropriations will be made, it was planned, as the University is able to use the money. In addition is another appropriation already available for $1,100,000 for plans and specifications for the buildings under the University's post-war program. This was made in order that there may be no delay when construction is possible. Work on preliminary plans is already under way.

In working out plans for the new buildings, President Robert G. Sproul will maintain on each campus a committee to assist and recommend in matters of campus development and building location.

On the Berkeley campus, Arthur Brown, Jr. is supervising architect; on the Los Angeles campus, David Allison; on the San Francisco campus, Timothy L. Pflueger; and on the Davis campus, R. J. Evans. These will be assisted in the planning of the buildings by executive architects chosen locally in the cities where the University has its campuses. Pflueger already has been named to design the Teaching Hospital at San Francisco; Blanchard & Maher, the Veterinary College buildings, at Davis; and Allison, the Student Health Center at Los Angeles.

BERKELEY CAMPUS

Expenditures on the Berkeley campus will total $7,375,000, of which $100,000 for an addition to Hesse Hall already has been authorized. The remainder is to be appropriated from state funds.

Completion of stacks in the General Library will cost $250,000 with installations of library shelving and stacks in the present light wells of the main stack room, with alterations to facilitate the handling of books. A Library Annex Building is proposed, at a cost of $1,000,000.

A Chemistry Laboratory, to cost $600,000, is to be constructed to relieve the cramped situation in the College of Chemistry. Five buildings now are in use, only one of them less than 30 years of age, and it 27, and one of them dating from 1891. More than 150 students are turned away from chemistry every year because of lack of facilities. None of the old structures will be torn down.

In the College of Engineering, it is planned to spend a million dollars in the construction of an Engineering Design Building to replace the present frame structure, and for an adequate building to house electrical engineering.

PLANS $27,000,000 POST-WAR BUILDING PROGRAM

The School of Public Health, a new activity within the University, is to have a building of its own near the Life Sciences Building, to cost a million and a half. It will house, also, the State Department of Public Health, now in the Life Sciences Building.

A Jurisprudence Building, to relieve the congestion in Boalt Hall, which was built to care for 100 students and where there normally are 300, will cost $675,000. The library exceeds by four times the provisions made to house it. The new building will be nearly five times as large as Boalt Hall.

A Forestry Building is planned at a cost of $600,000 to house the Department of Forestry, the curriculum of which is rated by the American Society of Foresters as the best undergraduate school of forestry in the United States. The new building would house the forestry department, the California Forest and Range Experiment Station, both of which now are in Giannini Hall in space badly needed by the Giannini Foundation and Agricultural Extension, and permit the removal of the plant nutrition division to Hilgard Hall, relieving congestion in the Life Sciences Building.

Another new endeavor for the University is presaged by the plans for a $500,000 Forestry Products Laboratory, to be placed on the Gill Tract in Albany.

Anthropology is to be a $500,000 building of its own, for teaching and for a museum.

An insectary building to cost $50,000, badly needed for many years, will be added to the agricultural group of buildings.

To provide heat, light, etc., to these new buildings, $100,000 will be spent on an expansion of the utilities system.

DAVIS CAMPUS

On the Davis campus, near Sacramento, will be situated the new School of Veterinary Medicine, for which $500,000 has been appropriated; a Plant Science Building to cost $500,000 and to house three important and closely related plant science divisions now inadequately housed, two in thirty-year old wooden firetraps, the third in a building intended for use as a garage; a Soils and Irrigation Building to cost $300,000 to house these two divisions; and a Poultry Husbandry Building, to furnish quarters for one of the most poorly housed divisions on the campus, cost $250,000; and a Student

(Turn to Page 38)

Desert Idyll
POETRY is not all written. It may find expression in stucco and stone, inspired by such settings as this, at Palm Springs, California. ★ Residence of Mr. J. E. French. Architect, C. O. Matcham, A.I.A. ★ PAYNE heating and ventilating.
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IN THE NEWS

HOME PLANNERS INSTITUTE

The now finished post-war planning course, sponsored by the Los Angeles County public schools, included some twenty or more lectures by architects and others prominent in the building construction field. Four hundred men and women, including 70 from neighboring cities, enrolled, and attendance averaged over 150 for the entire course. Many practical suggestions for residential planners were offered by the various speakers, who included Walter R. Hagedohm, Captain E. Allan Sheet, Paul R. Hunter, Vincent Palmer, Van Buren Livingston, Paul J. Duncan, Sumner Spaulding, Professor C. Y. Raymond Johnson, J. Frasier Rae, Senor Carlos Contreras (city planner of Mexico), W. H. Geyer, A. B. Smedley, R. A. Buckby, F. B. Nightingale, Edgar H. Wileman and Chas. E. Berry. Two municipal building inspectors contributed some useful information, as did several general and sub-contractors.

The movement worked out so well that a similar course is planned for Northern California.

ENGINEERS' AND ARCHITECTS' DINNER

On July 27, members and guests of the Engineers and Architects Association of Southern California dined at the Royal Palms Hotel, Los Angeles, to enjoy not only an excellent meal, but talks on three timely subjects. Colonel Alexander R. Heron spoke on "Organization for Correlation of Post-War Activity — Why and How," and Councilman Parley Parker Christensen discussed "Collective Bargaining for Public Employees and How It Came to Los Angeles." Third topic, "Get Ready for Tokyo," led by Will Chappel of the Los Angeles War Council, was dramatic and all-absorbing.

COURT DISMISSES ARCHITECT'S SUIT

Architect George Wellington Stoddard's suit against Kings County, asking $6,837 for drawing plans for the proposed County Hospital wing that never was built, was dismissed by Superior Judge Howard M. Findley.

The court upheld Defense Counsel Edwin C. Ewing's contention that the contract was unenforceable because it was contingent upon the county's obtaining a $600,000 Federal Works Agency grant to build the wing. Later, the voters refused to approve a tax levy to raise $200,000 as the county's sponsoring share of the cost.

KAISER WIDENS HIS SPHERE

Insatiable Henry J. Kaiser balks at no enterprise, provided it is constructive. Climaxing weeks of study and negotiation, a huge post-war venture has been announced by this amazing man who has the building industry wildly guessing, "what next?"

Recognizing the existing and urgent need for housing in the entire Pacific area, and anticipating the future requirements in this region and in the Orient the Kaiser deal aims to provide basic materials for an unparalleled era of building by the establishment of gypsum rock handling and grinding facilities, the erection of large plaster and wallboard mills, and the extensive development of gypsum agricultural products.

Since Mr. Kaiser is already actively engaged in producing sand, gravel, cement, light metals, and steel, the new gypsum facilities, together with the existing plants, will greatly advance the availability of a wide variety of materials for small industries, contractors, dealers, and others who expect to take an aggressive part in the post-war expansion.

The financing of the agreement between Mr. Kaiser and S. A. Perkins, president of the Standard Gypsum Company, for their respective companies, which runs into millions, has been arranged wholly without government aid.

The new setup assures the entire Pacific basin a virtually unlimited quantity of high grade gypsum, readily available to all Pacific markets at advantageous prices. The supply of raw material will come from Lower California, Nevada and Alaska.

It is known that intensive research has long been under way by architects, contractors and manufacturers for the modernization of home building, not only on site by conventional methods, but by prefabrication and the bold employment of new materials and processes. There is confident assurance that fireproof and earthquakeproof homes can be built at substantial savings in time and cost, without sacrificing beauty, artistry, or individual tastes and preferences.

CZECHS TO HAVE NEW LIDICE

A new Lidice, to be built in Czechoslovakia after the war, is being designed at Columbia University under the auspices of the Czechoslovakian government in exile, it is announced by Leopold Arnaud, dean of the Columbia School of Architecture.

The rebuilding of Lidice was authorized by Joseph J. Kalenda, head of the Department of Public Works of the Czechoslovakian Ministry of Agriculture, now in this country as a delegate to the Czechoslovakian Labor Office Conference lately held in Philadelphia. The project will utilize the most modern architectural developments being taught at Columbia, where plans for the reconstruction of two Greek cities were recently designed.

(Turn to page 12)

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It appears that the trend for this new construction era will include such features as prefabricated assemblies of structures; prefabricated or "pre-assembled" bathroom, kitchen, heating, and air conditioning units; plastic products as applied to finishes, trim, and accessories for buildings; and the simplification and standardization of the "old line" of building materials.

We would like to get literature, data, and general information on the above topics.

Yours truly,

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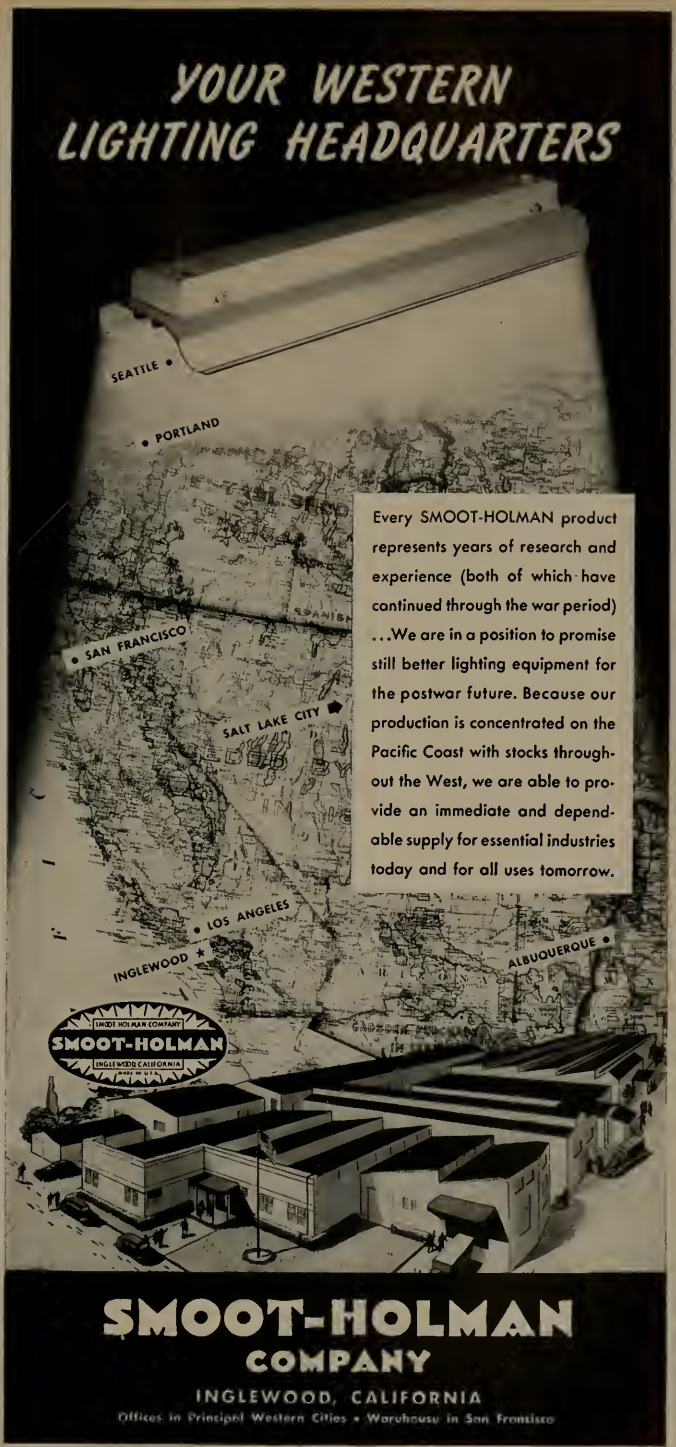

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IN THE NEWS

(Continued from page 10)

Dr. Kalenda, a native of Prague, comes to Columbia from London, where he has been active with the Inter-Allied Committee for Physical Planning and Reconstruction and the United Nations Works and Building Committee since the fall of Czechoslovakia.

The designing of the new town is under the direction of Robert H. Podzemny, Czechoslovakian architect and town planner, also a native of Prague. Mr. Podzemny was one of the designers of the Czechoslovakian Building at the New York World's Fair. He holds the degree of Master of Science in Planning and Housing for Columbia.

The new Lidice will provide an educational example of the most recent trends in American town planning to young Czechoslovakian architects, whose progress has been interrupted by five years of war. Its construction will be the basis for future post-war exchange of ideas, professors and students between Europe and America. The work of rebuilding Lidice will employ hundreds of Czechoslovakians after the war and will be financed by the Czechoslovakian government.

GIVES WAY TO THE MODERN

The strict and rigid compliance with the tenets of the classical school in architecture, which has obtained altogether too long in Washington, should be abandoned in favor of a more fresh approach to the problems which will confront the designers of new buildings in the future. This modern note was emphasized in a recent address by Gilmore D. Clarke, chairman of the National Commission of Fine Arts, on "Aesthetic Standards for the National Capital." It would seem to sound the death knell of a decade-old policy of the Fine Arts Commission which has consistently refused to sanction abandonment of the classic background that was the basis of rebuilding the city in the years of its renaissance. Clarke urges simplification of design, at the same time making room for rich embellishment by sculptor and painter and thereby providing a greater distinction in our Government buildings, a distinction which will tend to make them more wholly American.

BUILDERS OF THE WEST

The Structural Engineers of Northern California have endorsed in principle a new organization known as Builders of the West, Inc., with activities extended over the eleven Western States. Some of its objectives are: 1) to provide the means to stimulate industry in supplying jobs for returning service men; 2) to provide the means for making all-out effort to hold industrial gains and to stimulate industrial expansion during the conversion period, and 3) to provide the means for stabilizing the construction industry by removing peaks and valleys, through a controlled public works program.

STUDIO THEATER COMPETITION

Station WGN, Chicago, has appointed a jury of awards to consider all entries and to select the prize winners of its theater competition. The jury consists of Col. Robert R. McCormick, editor and publisher of the Chicago Tribune and president of W-G-N; Mr. Schreiber; and Henry Weber, director of music for W-G-N. The station has also appointed John W. Park, production manager of the Chicago Tribune and a licensed architect, as its agent and counsel in the competition, to act in the capacity of professional adviser.

Decisions of the jury of awards will be based on general excellence of the entries, ingenuity in the use of space, beauty and distinction of design, functional efficiency, anticipation of future needs, and showmanship. The jury will meet as soon as possible after the closing date of the competition, November 15.

Details of the competition, which are covered thoroughly in a booklet, obtainable on request, come under the following headings:

The sponsor and the purpose; the prizes; who is eligible to compete; how to enter and what to enter; the problem; professional adviser; inquiries; anonymity of entrants; judging; announcement of decisions; delivery of entries; return of entries; exhibition and publication of entries; adaptation and use of entries; disposition of non-prize-winning entries; and the purchase and use of materials described in the entries.

GOODMAN ON RUSSIAN ARCHITECTURE

On Thursday evening, July 20th, Michael A. Goodman, associate professor of architecture of the University of California, and assistant editor of Architect and Engineer, spoke on "Municipal Reconstruction in the Soviet Union" at the San Francisco Museum of Art.

Mr. Goodman, who came to this country from Russia in 1921, is a graduate of the University of California School of Architecture, and has been connected with the University for the past sixteen years. A student and teacher of design and city planning, he has been represented in architectural exhibitions in San Francisco, New York and Europe. Mr. Goodman majored in economics from the University of Vladivostok.

August 10, Mr. Goodman was appointed a member of the Berkeley City Planning Commission for four years.

ULRICH HAS IMPORTANT MISSION

Franklin P. Ulrich, secretary of the Structural Engineers of Northern California, who was given a welcome-home dinner at the Engineers Club in San Francisco last month, will continue his travels to Mexico, Washington, and the American Republics. His recent return to San Francisco, after five months absence, was only temporary as he has strenuous work ahead collaborating with representatives of the various Republics in setting up seismological programs which are expected to be invaluable to this and other nations after the war. Headquarters for carrying on this program are in Mexico City.

THIS is worth planning for

IT'S already on the boards—preparation for a coming era in which building will be a primary interest. Never has the West been faced by such a pent-up need. Never has it been hungrier for the resumption of civilian building — for new homes, schools, hospitals, institutions and public buildings, for the modernization of store fronts—face lifting for countless ambitious communities.

In that opportunity steel is destined to play a bigger part than ever before. For in meeting the extraordinary demands of war builders, manufacturers and fabricators have come to a new realization of steel's versatility, its great adaptability, the wide choice it offers in properties and forms. Long held supreme wherever there was need for strength, endurance and protection, its uses have expanded until now it is known that no other material can serve in so many ways as well.

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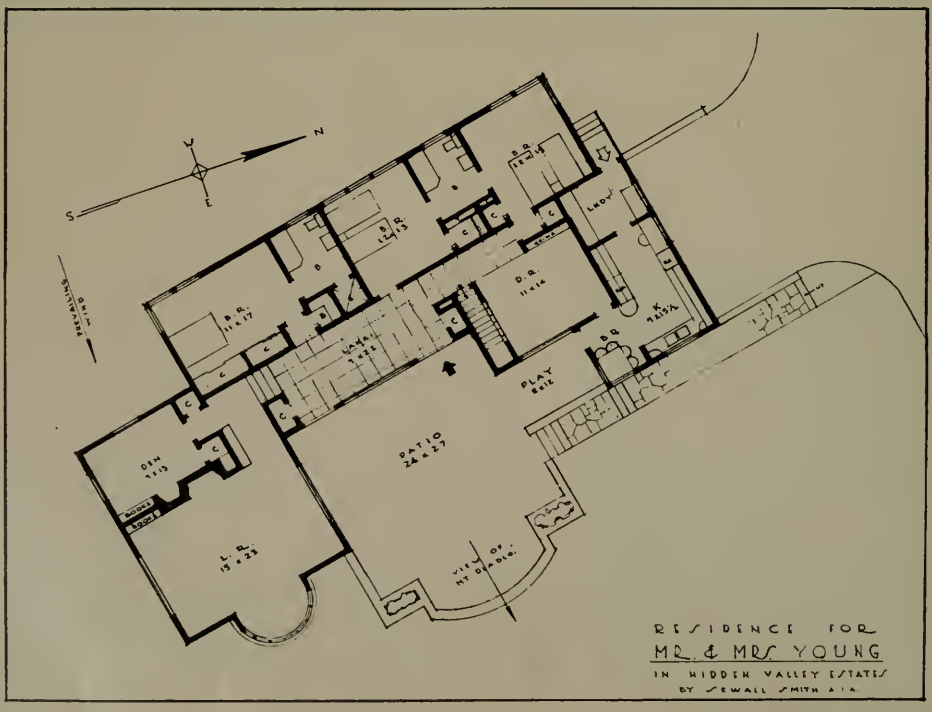
THE OLD DAYS WERE NEVER LIKE THIS

By FRED W. JONES

Twenty-five years ago if an architect sought a commission from a prospective client without formal introduction, he was not thought to be ethical by his fellow practitioners. In those days the successful architect depended upon his club and social connections for his entre to his clientele. He seldom, if ever, made any planned campaign to "snare" a prospect. He maintained a cheerful office, lounged comfortably in a swivel chair, and waited patiently for a "customer." If fortune smiled and a client of means and influence appeared, success of his professional career was assured, provided, of course, that his services were satisfactory.

While in the old days an architect stood firmly upon his professional dignity and waited for his client to approach him, today the situation is just the reverse. If he lacks business acumen, even though he be a good designer, his suc-

RESIDENCE FOR MR. CLYDE YOUNG
ON A SLOPE FACING MOUNT DIABLO
SEWALL SMITH A.I.A.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LAVAL 9 x 22
PLAY 8 x 12
PATIO 24 x 27
DEN 9 x 13
L.R. 15 x 23
VIEW OF MT DIABLO
RESIDENCE FOR
MR. & MRS. YOUNG
IN HIDDEN VALLEY ESTATES
BY SEWALL SMITH A.I.A.

cess is questionable. If he is in a position to employ a capable salesman there is some hope.

Each day finds competition growing keener for the die-hard old fashioned architect. For instance: 1) he must compete with the more progressive architect, who, if not a business man himself, employs one; 2) he must compete with the structural engineer whose services have been much in demand since the start of the war and who has proven his capability in handling large building projects, including the furnishing of complete architectural drawings; 3) he must overcome the competition of the general contractor, who really gives him something to worry about. If the architect is going to hold to professional ethics, different from the contractor's, he cannot advertise his business nor is he in a position to sell his plans, plus a building contract complete, for a specified sum. All these things a contractor can do and do legitimately.

However, if the architect is a good business man and an equally good designer he need not worry so much about his competitors. To emphasize our point, we cite one case that has come to our attention. Doubtless there are many others.

Early this year Sewall Smith* came here from New York State where he had practiced successfully for a number of years. He knew nothing of California except what he had heard or read, but it was the place where he had always hoped to practise. He had no relatives or friends on the Coast to whom he might look for advice, financial or business aid. Strictly on his own, this New York architect first obtained his bearings by visiting southern California; afterwards the northern part of the state. In San Francisco, he called at the office of the Architect and Engineer, introduced himself, sought advice where best to locate. Palo Alto and Santa Barbara appealed to him. We advised the East Bay where housing conditions foreshadowed a post-war building boom. Today Smith's name is on the door of a small but modern office building in the town of Lafayette, Contra Costa County, just over the Alameda County line, and one of the fastest growing settlements in the state. Although practicing in California less than four months, believe it or not, Smith has more work in prospect than he can conveniently take care of. Another draftsman is badly needed. Most of this business came to Mr. Smith because he went after it. Publicity, circular letters, realty transactions, community affiliations and personal contacts, all are answers to his success which, at the moment, includes more than a dozen commissions for post-war houses ranging in cost from $5500 to $15,000, three of which, in sketch form, are illustrated here. All are admirably adapted to our California climate and way of living.

To add interest, we asked Mr. Smith to tell us something about his office which, we think, is unique in its arrangement and general set-up. Architects will find the photographs intriguing. In defense of his office plan, Smith points out that previous to moving to California the furniture and equipment shown in the two views formed an essential part of his Niagara Falls home and office, and which won a National Better Homes Contest in 1938. Subsequently, pictures of the Smith house (see cut) were published in five magazines of national circulation.

Mr. Smith contends that "an architect's office deals in design in all of its applications. There is logic in even the smallest office doing its part in selling good design, being itself an example of sound and attractive organization." The two views dramatically illustrate the idea of a one-man set-up carried about as far as it can go. In these days of help shortages, even a stenographer is not essential to the efficient operation of this office. Yet the equipment lends itself to scaling up of personnel, when the occasion arises, and that occasion has arrived despite the fact that no actual building construction will be possible until after the war.

Correspondence, blueprints, client folders, drawings, samples and catalogs are all within reach of a centralized unit, as may be seen by studying the photographs. Thus, while "on the phone," anything that might conceivably be needed is at one's fingertips. "The inevitable wait for calls to be put through," Sewall Smith remarks, "has taught me to become a one-hand draftsman. Using an elbow technique with

*The Architect and Engineer for April 1944, published Mr. Smith's impressions of California homes.

HOUSE IN HIDDEN VALLEY
WITH A VIEW OF MT DIABLO
SEWALL SMITH A.I.A.

A HOUSE IN AN ORCHARD IN HAWAII
SEWALL SMITH A.I.A.

HOUSE FOR DR. J. C. PERNERT
Niagara Falls, N. Y.
Sewall Smith, Architect

As can be seen on the plan, the large bow window forms a music alcove; it overlooks the broad Upper Niagara. The garage has been placed to shelter the garden room—used frequently as a dining porch—from public view

The loggia gives protected cover from garage to house and also serves to relieve the stark appearance characteristic of screened porches

PLANS, HOUSE FOR DR. J. C. PERNERT

The large squares of "Thermopane" obviate any need for storm sash; they keep heat out in summer and retain it in cold weather. Roof is cantilevered to ease load on sash

View of living room from the entry. Note "book partition" which seporates living area from study, provides storage space for both and will someday house a cocktail bar

T-square and triangle, I keep on drawing, thus saving both time and outbursts of impatience!"

Nor must productive work cease whenever a salesman drops in. Certain types of drafting can be carried forward without loss of attention to what visitors have to say.

The main desk is made up of four standard, metal file cabinets, bridged with plywood top containing drawers and large slot for drafting boards, phone books, etc. By use of slip hinges, boards are interchangeable. Left off entirely, the desk is an unbroken birch flat-top. By using separate boards for each active job, the one for the appropriate client can be quickly slipped into place "as you spot him coming up the walk!" The adjoining birch storage counter houses magazines, samples, rolled blueprints, oversize catalogs and drawings (filed flat in large cardboard folders). It also accommodates a disappearing typewriter, readily removed for use elsewhere, and an i.e.s. lamp that can be swung over drafting board. "Spillover" space is provided on a large slide, over drawer sec-

Living room and rumpus room are open to each other, just as the study is articulated only by the book-partition and a raised floor. Back of the balcony rail, a curtain can be drawn from its curtain pocket to prevent ping pong balls from landing in the fireplace!

The "garden room" is worked overtime for the four months of the year that weather permits. Its fireplace is inspired from California examples

HOME FOR MR. JOSEPH KINZIE, YOUNGSTOWN, N. Y.

Another proof that outdoor living is highly valued in the East as well as in California. Fireplace is equipped for cooking, broiling, etc. The adjacent storage space for logs is also accessible from the interior.

tion, and on dropleaf of bookshelf unit. (In more spacious quarters this is placed adjacent to main desk.)

Bookshelf units, sized to accommodate magazines, are made up of birch boards held together with thirty-four-inch bolts, using chrome pipe sections for separators. The secondary desk, now in use as a conference table, can be fitted like the main desk for drafting, by merely slipping the drafting board into the two half hinges.

* * *

Of Mr. Smith's Eastern work illustrated, the Pernert house is outstanding for its free handling of traditional forms. Obviously this residence is an outgrowth of the owner's hobbies and expression of his tastes. The other control factor that obviously shaped the plan was a hearty respect for an unusual number of splendid large oaks on the property. The architect comments that the general appearance "might be considered by Californians to be so traditional as to be trite. In Niagara Falls, where it was built, the home was—in the words of its owner, 'unusual enough to clog traffic.' Located on a residential island in an out-of-the-way spot, it nonetheless drew Sunday motorists long before and long after it was finished. All of which is an indication that a newer section of the country can be much more ready for modern homes than one where the status quo is firmly entrenched."

Fortuitously situated overlooking the broad reaches of the Upper Niagara, the house was planned without basement, and the land surrounding the foundations was subsequently filled, inasmuch as it had been a swamp. The nearby river level has been known to vary as much as seven feet; the house had to be placed above the all-time high.

In its form as in its furnishings, the living room reflects the several uses to which it is put. Built directly on the oversize stone hearth is a permanent game table, with cushioned leather seats and windows of its own. Opposite the fireplace are the usual furnishings for relaxation, plus a book partition conveniently at hand. This, together with a raised floor, is all that demarks the study area. The book partition has been so planned as to later house a complete bar. The "music center," with space for stor-

FORMER HOME AND OFFICE OF SEWALL SMITH, NIAGARA FALLS

Use of mirrors, including a mirrored door to garage, lend feeling of spaciousness to a small garden room

HOME AND STUDIO FOR ROY MASON, BATAVIA, N. Y.

The stair winding around the chimney encourages relaxation from painting, in the large patio. Mr. Mason, noted artist, says: "It makes it a cinch to sneak the models out, when I hear my wife coming!"

HOUSE OF MR. & MRS. ELTON HOLBROOK, EAST AURORA, N. Y.

Another home for artists, overlooking rolling countryside. Like so much of this Eastern architect's work, it has a patio for making the best of the limited good weather

ing record albums, spreads beyond the large bay which commands views up, down and across the Niagara. The dining alcove is the size of a separate room, but again adds to the feeling of spaciousness due to "open plan" handling. It boasts a china cabinet, which like the shelves at muntin level across the dining alcove window, are lit by fluorescent lights. Directly over this room is the recreation room, with gadget bench at one end, where the owner can tinker to his heart's content.

All of which is a concrete example of the trend of the times.

STUDIOS OF WHLD, NIAGARA FALLS, N. Y.

Drum shapes are to "give life" to the acoustics, in the large public studio

MAP SHOWS RELATIONSHIP OF A NATIONAL TRANSPORTATION SYSTEM TO THE TRANSPORTATION OF PRODUCTION

PLANS FOR SUPER-HIGHWAY AND NATIONAL AIRPORT SYSTEM

by MAURY MAVERICK

As a region, the West Coast needs more transportation of all kinds to prosper and get into the markets of the United States. Like the South, the West is discriminated against in rates. To meet this situation highways and airports must be built on a great scale, and as a part of a super-system for the whole country. There must be competition in transportation as in little business. This competition will bring better, cheaper and more transportation.

The war has brought enormous strategic importance to the Pacific Coast states. Great ships and aeroplanes must go from every port on the Coast, taking products down to Latin America, up to Alaska and Russia, and over to Australia, New Zealand, China, and all the Orient.

This article concerns principally highway and airway transportation in the country, although the coastal airports also serve overseas transportation. A vast backlog of necessary airports and highways has grown up during the war. The development of these lines after the war will be so great that our imaginations cannot now comprehend it.

The chairman of the Civil Aeronautics Board, Hon. Lloyd W. Pogue, has announced a gigantically increased plan for world post-war air traffic. Two of the proposed routes for world travel are from San Francisco and Los Angeles. This is only the beginning. Hearings are taking place now on post-war planning for air world traffic. The time for the West to get in on this is now.

The Civil Aeronautics Administration has been making careful studies of all the possibilities. Just previous to the outbreak of the war it had great plans for America. These plans should be taken out of the bag now, and developed as quickly as possible. Like State High-

way Commissions, each state should establish a State Airway Commission. This means there will be a co-ordinated expansion of air traffic within the country, and for jumping-off places to foreign countries.

Concerning specifically air transportation in the West, giant planes will leave in the afternoon, and in six hours will arrive in all the cities of the East. Fresh fruits, citrus and vegetables picked one day will be eaten the next in New York City. The manufactured products of the West will be within a few hours of the East.

With the proper industrial reconversion of the West, overseas ship and plane transportation will carry a volume of five, ten or fifteen times as great as ever before. That is, if the United States properly wins the war and protects its interest in the Orient — which means the West must take an increasing interest in foreign policy.

It is now known as elemental that highways support and supplement the airways. While we know that there will be gigantic advances in air travel, we must not overlook the fact that much of the transcontinental air cargo must in turn be distributed locally — and far shorter distances over highway and by rail. Besides that, much of the slower transportation over the continent will be by truck.

To insure orderly planning and to facilitate communication between all parts of the nation, a plan for a system of super-highways and super-airports is proposed. The plan will furnish constructive employment directly and indirectly to two million people. It will save the West and strengthen our nation's economy. It will join together all parts of the nation and be of tremendous strategic, military value.

The highways outlined in this plan will cost approximately ten billion dollars — although this is not by any means an exact amount. This plan is not complete down to final details but, rather, gives an over-all picture from which to expand.

There are in the system three transcontinental highways, and six south-north highways, as well as a system of airports in connection with such highways. A minimum of one such airport, at least one mile square, to be located at or adjacent to each of the eighteen intersections of such highways, one with the other. There must be, of course, several thousand new airports; those here mentioned are super-airports in a national transportation system. The cost of these is unknown.

Each of the highways shall be divided, with three lanes of traffic in each direction. It shall be lighted at night at all times. The main highways shall go directly through the cities along the route. It is a fact that about 90% of the traffic moving on main highways has either or both its origin and destination in large cities. To prevent the danger of accidents, and traffic congestion, there will be spurs leading off from the super-highway into the cities.

There shall be a stipulation in each contract that the contractor shall employ first, veterans, and second, unemployed men between the ages of fifty and sixty, of the region in which his unit of the highway is built. This will mean constructive, honest employment for many returning soldiers. And they will be among the best workers possible. Our fighting men have been using the most modern road building machinery; they know what transportation means to military success. And by giving opportunity to those unemployed, between ages of fifty and sixty, we will to a large extent meet the problem of the older people in industry.

The benefits of the hereafter described super-highway system are boundless. When fitted in with local and state plans the nation will have the finest, most complete system of transportation, travel and communication in its entire history.

This system brings together all parts of the nation. The West Coast stands at the point of origin of all highways, and the point of origin, or jumping-off-place, to the expanding markets and trade of the Pacific.

Here is how the roads and highways run and join together.

WEST-EAST SUPER-HIGHWAYS

No. 1. It originates in the vicinity of San Diego to Los Angeles, California, running east to Savannah, Georgia, by way of El Paso, Texas; San Antonio, Texas; Baton Rouge, Louisiana; Mobile, Alabama.

No. 2. It originates in the vicinity of San Francisco, California, and runs east to the vicinity of Newark, New Jersey, by way of Yosemite National Park; Duckwater, Nevada; Huntington, Utah; Denver, Colorado; Phillipsburg, Missouri; Springfield, Illinois; Indianapolis, Indiana; Wheeling, West Virginia; Uniontown, Pennsylvania; and Cumberland, Maryland, to Newark, New Jersey.

No. 3. It originates in Seattle and Portland to a junction at Salem, Oregon, and extends east to Albany, New York, by way of Yellowstone National Park; Rapid City, South Dakota; Chicago, Illinois; Cleveland, Ohio.

SOUTH-NORTH HIGHWAYS

No. 1. The first of the south-north highways, and of great strategic importance, will originate in San Diego (with Mexican connections). It will extend on through Los Angeles, San Francisco, Portland, Seattle, into British Columbia, and finally to the Alcan Highway. The commercial and strategic importance of this cannot be overestimated.

No. 2. To originate in the vicinity of El Paso, Texas (with Mexican connections). It will run north to Canada, by way of El Morro National Monument, New Mexico, and Salt Lake City, Utah.

No. 3. To originate in the vicinity of San Antonio, Texas (with Mexican connections), and extend to the Canadian border by way of Hobart, Oklahoma; Ness City, Kansas; Broken Bow, Nebraska; and Pierre, South Dakota; Bismarck, North Dakota, to the Canadian border.

No. 4. To originate in vicinity of Baton Rouge, Louisiana, and to run to Canada, by way of Memphis, Tennessee; Jackson, Mississippi; Chicago, Illinois; and Milwaukee, Wisconsin.

No. 5. To originate in the vicinity of Pensacola, Florida, extending north by way of Atlanta, Georgia; Jonesboro, Tennessee; Charleston, West Virginia; Pittsburgh, Pennsylvania; and Buffalo, New York.

No. 6. To begin in the vicinity of Miami, Florida (connecting by highways with various seaports and airports for foreign trade) and to run north to Canada, by way of Saint Petersburg, Florida; Reidsville, Georgia; Columbia, South Carolina; Raleigh, North Carolina; Richmond, Virginia; between Washington, District of Columbia, and Baltimore, Maryland; New Brunswick, New Jersey; Springfield, Massachusetts; and Concord, New Hampshire. This will be also of great strategic importance like the San Diego-Alcan Highway.

MASTER PLANS AND REZONING NEEDED

Deterioration of American cities has reached alarming proportions, according to a report of the Committee on Civic Design and Development of the New York Chapter of the American Institute of Architects of which Grosvenor Atterbury is chairman.

New York City, the committee points out, suffers from a heavily deteriorated physical environment, and may fail to benefit from an expected postwar building program, unless measures for more effective zoning regulations under a more efficient master plan are undertaken.

"The physical development of New York City in the post-war period is fraught with all of the dangers inherent in the traditional building boom, which is expected to mark the resumption of construction activity," the report says.

"Experience has shown that building booms, uncontrolled by a master plan and an effective zoning of land uses, leave trails of wreckage in their wake, adding layer upon layer of obsolescence, as a result of which the city's organism becomes incrusted and atrophied.

"New York's situation resembles that of other

cities of this country, particularly the older ones. So serious is the physical deterioration in most American cities that experts are beginning to question the ability of the larger urban centers to produce a satisfactory way of life in their present form.

"Whatever may be said regarding this opinion, the facts all point to one conclusion; that is, that our cities cannot continue indefinitely in their present condition. The situation is clearly one requiring a much more fundamental approach than has hitherto been made to the problems of the physical environment within the city.

"Experience has shown that the accepted policy of piecemeal readjustments and temporary measures has failed. Such palliatives have not even arrested, much less reversed, the process of slow deterioration that has been in progress for many years. The stage now reached by New York City, where buildings are deteriorating faster than they are being replaced, certainly has far-reaching implications.

"They indicate that an easing of the burden of real estate taxation, advocated in some quarters, is, by itself, not only a minor factor in solving the problem, but that this financial burden is inextricably wound up with all the physical factors involved in the problem.

"Although the deteriorated physical condition of New York City requires a major operation, this operation is economically possible provided it is carried out under a well-considered, long-range policy. The basis of such a long-range policy must be the adoption of a thoroughly effective master plan and a comprehensive rezoning of the City's land uses—two requirements that are now lacking. Furthermore the time to act is now."

The present zoning and master plan procedure in New York City, the committee finds, are inadequate to such an extent that in effect there results a city-wide condition of maladjusted and unbalanced land uses, and a disorganized traffic problem.

"This, together with other factors, will continue to lead the city along the downward path of physical deterioration which it follows, and which inevitably leads to insolvency," the report continues.

"Evidence of this deterioration is widespread throughout New York City. Contrary to the prevailing conception of the public, deterioration is not confined to the slums or to the blighted areas. The process affects all classes of structures. It extends to office and loft structures, and to docks, terminals, and warehouses. Another of its characteristics is traffic congestion within the areas affected.

"Congestion of traffic is most acute in, but is not confined to the newly and densely built-up central districts, such as midtown and downtown Manhattan. In these central districts depreciation is far more extensive than meets the eye. A consideration of the finances of structures, even of many properties that are comparatively new, reveals a strong trend towards premature economic obsolescence."

General View of district suggested for the site of the San Francisco World Trade Center, showing tentative location of Trade Center, Terminal and Transportation Building Zone and the Warehousing Zone. The district is astride the proposed traffic artery and notable scenic highway around San Francisco

STUDIES FOR A WORLD TRADE CENTER*

"Could those and I with fate conspire
To grasp this sorry scheme of
Things entire,
Would not we shatter it to bits
And then
Re-mould it nearer to the heart's
Desire!"

Omar Khayyam

Reference to previous studies and illustrations is made to the May, 1944 issue of Architect and Engineer, beginning with page 14. The points high lighting this classroom design investigation are briefly the following:

The problem pertains to the conversion of an old city district to new building sites. At the American Marketing Association's "War Conference" last year our Metropolitan Area was rated as one which grew at above average rates during war as well as in the preceding periods and are adjudged to have excellent prospects of retaining war-time growth. Purpose of the problem is to study future design possibilities for the proposed San Francisco World Trade Center sponsored by business and civic groups. Sample investigation was to be made for an office building zone, a warehousing zone, terminal and other buildings to be placed in areas designated. The district selected for the World Trade Center of which studies for two component areas are being reproduced in this issue is bounded roughly by Sacramento and Battery streets and the Embarcadero. The student had a choice of area in the assigned district.

It was held that emphasis on planning devoted entirely to making cities livable must not overshadow the fact that there is a growing interest to organize and plan to alter districts for business use; and that, while San Francisco is geographically favorably situated and is experiencing war-time ascendancy as a port, post-war face lifting will have to be planned in order to insure foreign trade benefits. The site was chosen to provide new use for it by planning to build attractively with low obsolescence quality.

The class design project called for studies of the physical stage of planning in which architects and engineers are to participate. Sketches of sample planning were to incorporate cer-

Second part of a class project in design, School of Architecture, University of California, Prof. Michael Goodman, instructor in charge. Transportation and Warehousing facilities as part of the development of the World Trade Center for San Francisco. March 7 to 17, 1944, was the duration of the assigned study.

Acknowledgments: Gabriel Moulin Studios and San Francisco Planning Commission.

STUDY, DESIGN #6 FOR THE SAN FRANCISCO WORLD TRADE CENTER. A BUS TERMINAL WITH HELICOPTER LANDING FACILITIES
Henry Lagoria

Motor bus transport facilities have been perpetual problem children. The steady growth of traffic and increase business made it difficult to provide adequate physical plant. Operation and choice of location as a result had alw been straight-jacketed and left in its wake questionable planning standards.

The character of the studies provide for a group of operating buildings, some loosely connected, with maxim perimiter of docking facilities for all emergencies. The design is to facilitate the transportation of varying multitu

tain guiding principles and controlling elements in the direction of a final scheme with adherence wherever feasible to the general provisions of the master plan proposed by the Planning Commission of the City of San Francisco. On the assumption that determination would have been made by the Planning Commission and other participating agencies, to the architectural class student as a future planning technician and a member of the community, gathered facts, their analysis and their determining form will tend to reveal the complex relations of planning. Although the design sketches leave many questions unanswered, they should have proven a stimulating contribution of investigation of a problem for which the final program has not yet been determined.

San Francisco being water-locked presents problems not common to most cities. To those who think more than in terms of a city plan,

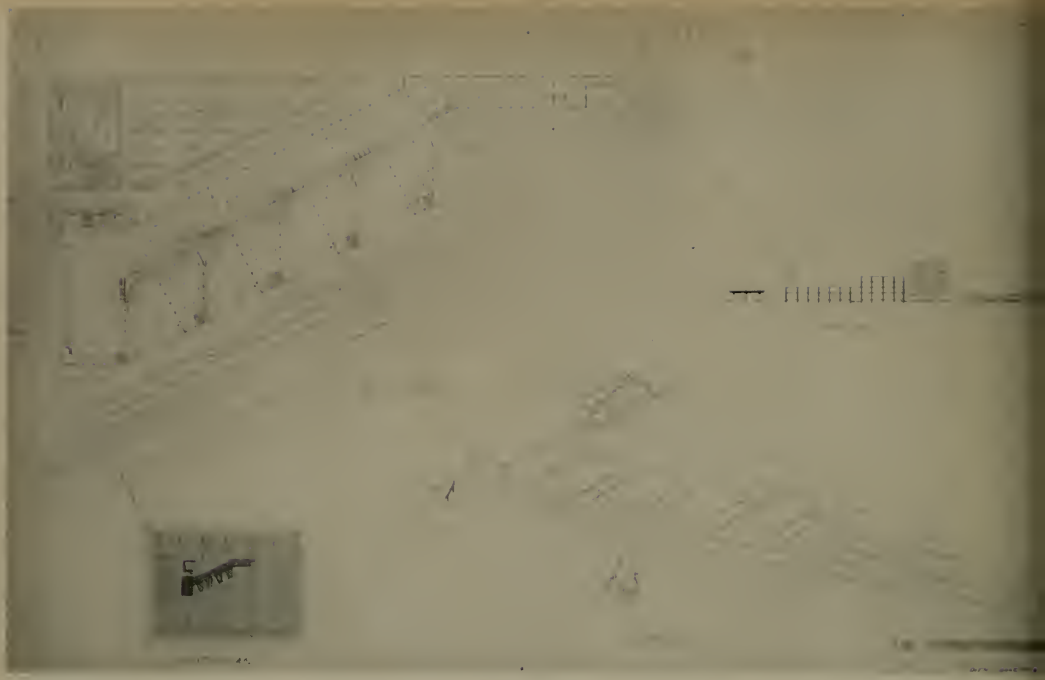
TDY, DESIGN #7 FOR THE SAN FRANCISCO WORLD TRADE CENTER. A BUS TERMINAL
V H HELICOPTER LANDING FACILITIES
di Jane Moorehead

passengers, receiving and trans-shipping of parcels and special freight. Helicopter landing is relegated to roof spaces part of a whole regional network, to be integrated with other transportation centers.

Provisions are made for parking, taxi and private car access, repair and large storage areas for buses and helicters, office space, briefing rooms, visual instruction and public auditorium and entertainment spaces; dining rooms, hen and cafeterias, rest rooms and various concessions; checking, tickets, baggage and freighting. Public con-

the Planning Commission's Bayshore development program assumes more significance. It is a peripheral highway route connecting many points, of oceanic beauty and industrial importance. Being inter-regional, it will by-pass the city centers, much to the benefit of the city, providing an easy flowing communication with the arterial road system. Traffic could be specialized and easily controlled; for the volume of city traffic becomes incalculable the moment its boundaries are opened to traffic which has no tangible relationship to the city itself.

Motor transport facilities are problem children. Before, terminals and depots were mostly remodeled structures, built for other uses. With every expansion, general exasperation was increased by allowing motor transport to mingle with traffic. A survey of traffic trends will indicate an increase in the use of commuter, long haul and air-line bus service. In making investi-



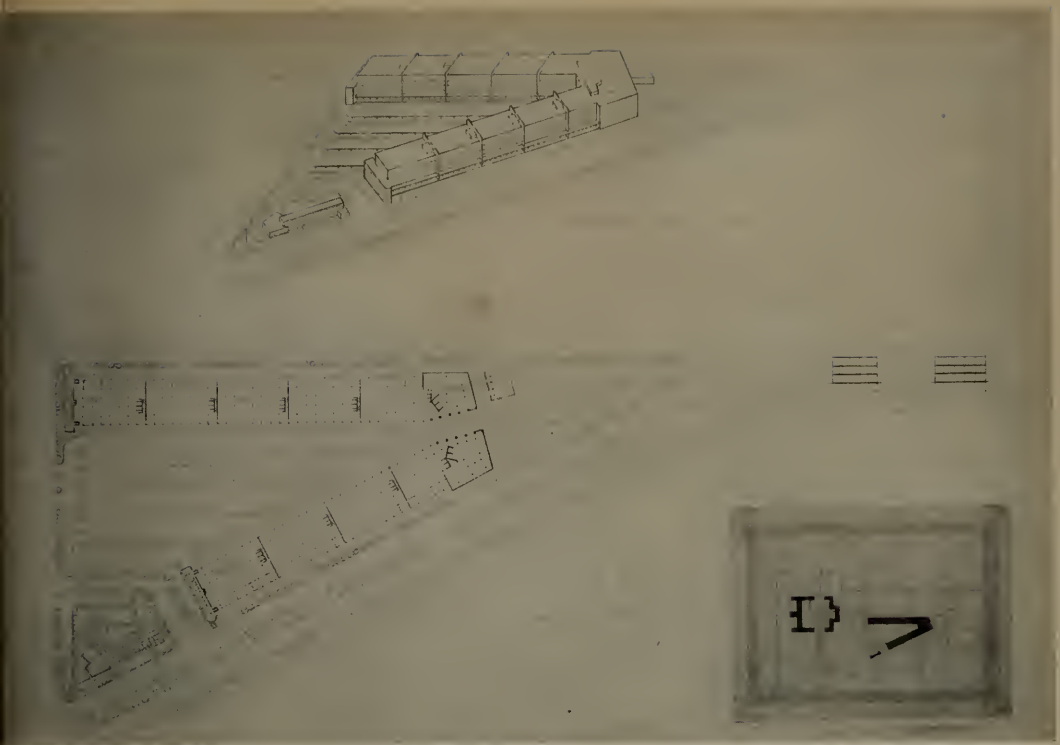
STUDY, DESIGN #8 FOR THE SAN FRANCISCO WORLD TRADE CENTER.
THE WAREHOUSING ZONE
Miss Edith Fagerlund Jacobsen

course and waiting spaces for all kinds of traffic are provided as well as docks for local and commuter buses, expr inter- and intra-state traffic, trucking yard, etc. Helicopter facilities are to use the same services. Ventilation a acoustical conditions are to be maintained as an important feature influencing the study of design.

The Warehouse Zone buildings are tentatively set in the area between Pacific Avenue, Front Street and the Emb cadero. Available floor space for re-packing, consignment, re-export, plant, etc., not including the storage sheds, is ab 1,500,000 *square feet. An administration and office building has in addition to business floors, a cafeteria and servi recreation in-and-out of doors as well as parking and well arranged planting schemes.*

gation for a Bus Terminal, it must be kept in mind that centralized bus traffic will tend to eliminate some aggravations of local problems. The terminal site (chosen for a planning example) should form a nucleus for the transport zone of the World Trade Center and provide an important step in the solution of mass transportation needs of the city itself, proving that good modern transportation is a key to community planning. The nearby Ferry Terminal Building area is ear-marked for recreational and other facilities by the Planning Commission.

All congested centers are looking ahead to aerodromes at peacetime, including the use of roofs of depots and terminals as possible sites. While still in the headline stage of development at present, helicopter transportation and freight service thus provided may be expanded in the future or converted to other uses, such as parking, as need arises. Helicopter facilities



DY, DESIGN #9 FOR THE SAN FRANCISCO WORLD TRADE CENTER.
: WAREHOUSING ZONE
ry Lagorio

In general, cargo will be moved by freight car and truck through the warehousing area to and from the water-nt and other points along the shore line. The piers connect to the State Belt Railroad originating at the south end the waterfront. Freight cars are brought across the Embarcadero at some points to the sorting and storage yards. ovement of trucks is separate from freight cars, dovetailing at loading points. A great perimeter of sheds for load-and short rental is provided in the study No. 9 for trucks as well as cars. This is important, due to climatic ditions in San Francisco.

will be integrated with outlying transportation centers.

The Warehousing Zone is to be part of the group devoted to foreign trade and should develop new and substantial movements of cargoes from abroad, much of which may be sent on consignment or re-export or warehousing, repacking and re-processing. The site is bounded by Pacific Avenue, Front Street and the Embarcadero for this zone.

The purpose of the study is to investigate the type of schematic design applicable in this case with a view to the development of a more complete scheme. The sample may be applied to another comparable site such as China Basin where there are ample facilities by rail companies having trunk lines.

War activities have strengthened ties between communities of the San Francisco Bay Area. The highway and transportation development projects will maintain such ties in an area four-fifths as large as the state of Massachusetts.

This author, on the basis of recent emergency planning research, holds that such improvements will also promote planning for disaster preparedness for these nine counties of the metropolitan area and contiguous districts.

—Michael Goodman

STUDY FOR FERRY BUILDING AREA, PREPARED BY SAN FRANCISCO CITY PLANNING COMMISSION

THE TRUTH ABOUT "DREAM HOMES"

Most business leaders, industrialists and economists look to private building and its allied interest to form a potent stabilizing force in our post-war prosperity. But a recent survey of consumer demand and expectations in post-war homes shows that this will not be true unless the public's conception of "miracle" housing is exploded.

The revealing study, sponsored by the National Association of Home Builders, clearly shows that prospective home buyers are convinced a new era of "Dream World" houses will start the day hostilities cease. Their expectations, fostered by well-intended but misguided post-war prophets, portend harmful consequences for the building industry.

The popular delusion of the "miracle" house must be dispelled and replaced with the true story of the many practical improvements in design, construction methods and interior equipment that will provide more livable houses. Otherwise, the building industry faces the thankless task of dealing with a disillusioned and disappointed public in the immediate post-war years. As a consequence, the industry will not be able to do its full share in providing employment.

The survey was conducted in Atlanta; Chicago; Columbus, Ohio; Hartford, Conn.; Houston; Minneapolis; Pittsburgh; Rochester, N.Y.; and San Francisco. It was confined to the broad middle class with an average annual income of $3,027, and embraced the middle younger age bracket. Of the families interviewed, 32% owned their homes and 68% were non-owners, but 45% of the total indicated they expected to build or buy a home. The great majority, or 68%, expected to build or buy from one to two years after the war.

More than half of those interviewed expected to get a six-room house with two baths, replete with mechanical wonders. Yet, they planned to pay an average of only $52 per month in financing the mortgage.

Prospective home buyers were asked this question about six projected developments in low-cost homes:

"At the price you intend to pay, do you believe that any of the following 'revolutionary' changes will be available?"—

	Percent expecting it to be available at prices they are willing to pay	Available how soon after the war Months
Complete air-conditioning with cooling in the summer as in the movies	72%	10
Electronic controls which will make housekeeping far more simple than today	81%	11
Extensive use of plastics for plumbing, pipes, bathroom fixtures, wall surfaces, etc.	81%	8
Movable partitions which permit the making of one room out of two, or vice versa	60%	6
Outside walls which can be opened up on a garden or terrace in warm weather	54%	8
Rooms built as complete units which can be added or removed, depending on family requirements	56%	8

In other words, the overwhelming majority, planning to pay an average of only $52 per month, expect construction features or products which either did not exist in the pre-war period, or which were available only to a minority of home buyers in the high income brackets.

WON'T BUY WITHOUT MIRACLES

The most revealing part of the survey (which should awaken everyone to a realization of the damage already done by over-selling the public with predictions of impractical things to come) was contained in replies received to this question:

"Would you build or buy a new home if you could not get any or all of the six typical "revolutionary' changes in home construction?"

Here's what the consumers interviewed had to say:

54% said they would not build or buy if they could not get complete, year-'round air conditioning.

62% said "NO" if they could not get electronic controls which would make housekeeping far more simple than today.

53% said "NO" if they could not get extensive use of plastic for plumbing, pipes, bathroom fixtures, wall surfaces, etc.

27% said "NO" if they could not get movable partitions.

37% said "No" if they could not get outside walls which could be opened up on a garden or terrace.

28% said "NO" if they could not get rooms built as separate units which could be added or removed.

A further breakdown of the replies disclosed that families willing to pay more than $60 in monthly installments for their home expected the most for their money; those in the $40 to $60 bracket expected only slightly less; but even among families willing to pay less than $40 per month, from one-fifth to two-fifths said they would stay out of the market unless they could get the six typical "revolutionary" changes they had been led to believe would be available in the immediate post-war years.

In other words, the survey clearly indicates that families in the broad, middle income group —the bulk of the post-war market—say they will postpone buying a home until the "magic house" can be purchased at the price they are willing and able to pay.

WHAT CONSUMERS MAY EXPECT

Just what will the improved "Home of Tomorrow" be like in design, construction and interior equipment?

Frank W. Cortwright, executive vice-president of the National Association of Home Builders, speaking for the nation's leading builders, says:

"There will be gradual, progressive evolution in home building, but not drastic revolution. Greater emphasis will be placed on selection of site and designing the house to blend with the general surroundings to provide a maximum of spacious living.

"Conventional types of home will continue to dominate the American scene, with reasonable modifications, such as wider acceptance of the low, sweeping roof lines of the California and Florida styles.

"In construction and equipment, the builders will be able to deliver the best types of pre-war housing with considerable more window area, increased emphasis on size and charm of the living room at the expense of the dining room. Especially attractive kitchens and bathrooms and appealing basements will be outstanding features of post-war homes.

"Practical, labor-saving devices to reduce the burden of housekeeping will be built into these homes, depending upon the wishes of the consumer and his ability to pay for extra interior refinements."

Once the "Magic Home" bubble has been pricked, and the public correctly informed on what it can reasonably expect in greatly improved living conditions, the building industry and its allied interests will be in the happy position of dealing with enlightened customers. They won't be confused and bewildered by conflicting illusory promises.

NEW PRODUCTS THAT ARE CERTAIN

Although relatively few distinctly new building products will be ready for use in early post-war construction of homes and other buildings, most of the widely accepted pre-war materials and equipment will again be available soon after private building is resumed, according to a statement by The Producers' Council, national organization of manufacturers of building materials and equipment. Tyler S. Rogers, chairman of the Council's Technical Committee, says:

"The production of war materials continues to occupy the major attention of most manufacturers, some of whom are turning out war materials at an even faster rate than in the past. For that reason, the appearance of new products which require painstaking research and testing will necessarily be delayed."

"First of the new building products to appear, other than those tested in the course of the war program," he declares, "will be those which were ready at the time when war broke out but had not yet been introduced. Many of these products will represent a distinct improvement over the pre-war models.

"Among the products which will be ready for immediate post-war use are an insulated glass window, designed to reduce heat transmission and deaden outside noises; a central air conditioning system for apartment houses and other large buildings which provides individual room control; war-time plumbing equipment for both homes and hospitals; a forced system for hot water heating of homes and other structures; an acoustical material suitable for use where humidity is high, and prefabricated equipment for the erection of concrete forms."

Improvements to be developed include a lightweight steel framing system for smaller buildings, a war-time shower cabinet using a minimum of critical materials, and suggestions for novel use of glass in store fronts.

SOUTHERN CALIFORNIA CHAPTER

Southern California Chapter's July meeting took the form of an enjoyable outing at the Uplifters' Ranch Club in Santa Monica. Members pitted themselves against each other in friendly athletic contests, including baseball, horseshoes and, believe it or not, crap. These gentlemanly activities, plus a highball or two, helped to revive the spirit, loosen the melodious tongue and promote the charley-horse. Also, there was swimming at 50 cents each and, as a fitting climax, a bountiful $2.75 dinner.

Following are a few interesting notes from the July Chapter Bulletin, ably edited by Paul Hunter, secretary:

During a recent visit in Los Angeles, Richard C. Voell, assistant director, Technical Division, N.H.A., was guest at a luncheon attended by many Chapter members. Mr. Voell is meeting with architects, builders and material manufacturers and dealers to learn what research and studies are being carried on which may affect the post-war house.

Paul Williams has returned from a trip to Colombia, where he has commissions for office buildings, hotels, residences and a landing field. He found great interest and building activity in Bogota, Medellin and Cali.

Cornelius M. Deasy is now an ensign in the U.S.N.R.

Delbert Long has been transferred to Camp Irwin after a year and a half in the Aleutians.

Howard Morgridge reported to Fort MacArthur on June 22nd.

William Woollett, Jr. has been appointed Associate Regional Director of Building and Services for the U.S.O.

The four members of the senior class at the University of Southern California, Mildred Stewart, Bob Langdon, Harry McDonald and Frances Friedrich, have completed a remarkable redevelopment study for the Los Angeles business area bounded by Broadway and Main, and Third and Fourth Streets. This study is based upon field research and analyses of costs, construction, and design. The results are presented as an exhibit consisting of seventeen drawings and a model at 1/16" scale, approximately four by five feet in size.

POST-WAR HOUSING NEEDS

Local communities should make detailed inventories now of all existing residential accommodations to determine post-war housing needs, Frederick M. Babcock, housing and finance consultant of Washington, D.C., advised the executive committee of the Producers' Council at a recent meeting.

"Such an inventory would center the responsibility for adequate housing for families in all levels of income on local people who are intimately familiar with local needs and resources," Babcock said.

"Properly conducted surveys of this kind would enable all groups to know the extent and nature of immediate post-war needs. They would aid in stimulating the construction of the right kinds of buildings and other facilities and would be invaluable in assisting builders, suppliers, financing agencies, and governmental units to ascertain immediate post-war building requirements in the local area.

"Such inventories would furnish information vitally needed by city planning officials, health departments, local public utility companies and all types of local business organizations, to complete in advance detailed plans for post-war construction of industrial and commercial structures, public improvements, and public utility facilities. Both the modernization of existing residential properties and the erection of new dwellings will invite the building of streets and highways, transportation facilities, schools, stores, and numerous other kinds of non-residential property.

"The surveys would provide information needed for an orderly, prompt, and soundly conducted resumption of the kinds and amounts of post-war construction necessary to provide maximum employment and to create better cities, better residential environment, and better shelter in coming years."

ARCHITECTS' NEW ADDRESSES

W. E. Coffin has moved from 1315 Teneight Way, Sacramento, to 1100 "N" Street, same city.

Breo Freeman, from 91 North Oakland Avenue, Pasadena, to 303 Markham Place, same city.

E. Keith Lockard, from 1746 Prospect Street, Santa Barbara, to 1127 East Cota Street, same city.

Rudolph Meier, from 3427 Winslow Drive, Los Angeles, to 3520 Crestmont, same city.

Thomas B. Mulvin, from 1202 Architects' Building, Los Angeles, to 2666 Longridge Avenue, Van Nuys.

Howard R. Perrin, from 154 N.W. Maywood Drive, Portland, Oregon, to 825 Pacific Terrace, Klamath Falls, Oregon.

Frederick W. Quandt, from 2800 Filbert Street, San Francisco, to 291 Golden Gate Avenue, same city.

James Jay Radcliffe, from 1940 Oregon, Long Beach, to 300 East 65th Street, same city.

Aubrey St. Clair, from 424 Jasmine Street, Laguna Beach, to Box 245, same city.

Frederick Scholer, from 1051 South Cloverdale, Los Angeles, to 3876 Roxton Avenue, same city.

Chauncey F. Skillings, from 2600 South Hoover Street, Los Angeles, to 1031 West 20th Street, same city.

W. Wellington Smith has moved from 1247 Keniston Avenue, Los Angeles, to 1606 South Sterns Drive, same city.

Paul A. Thiry, from 606 Skinner Building, Seattle, Washington, to 468 Stuart Building, same city.

Edgar V. Ullrich has moved from 836 Kennebec Court, San Diego, to Box 242, La Jolla, California.

MOVES OFFICE

Frederick L. Langhorst has moved his office from 402 Jackson Street, San Francisco, to 447 Sutter Street, same city.

U. C. POST-WAR BUILDING

(Continued from page 9)

Health Center to care for the rapidly increasing student body, to cost $150,000.

LOS ANGELES CAMPUS

The needs of the Los Angeles campus were considered greater in this immediate post-war building program than those of any other part of the University. From the money set aside for the University's post-war program $8,080,000 will be spent there, together with $500,000 already appropriated and available.

The money already available includes $450,000 for a Student Health Center, to provide care for the rapidly growing student body. This project was halted when the war made construction impossible. Improvements will include additional seating.

Equipment for the Outdoor Theater on the campus; $180,000 to complete the theater and make it adequate for the needs of the campus; $600,000 for a hospital for the student health service; library alterations to cost $250,000; construction of a $500,000 east wing of the Library Building, to relieve the pressure already demonstrated before the war; the first unit of the Engineering Building, to inaugurate the work in aeronautical science and engineering, cost $1,250,000 as provided by the State Legislature; a Social Sciences Building to permit the more effective development of the social sciences, and to provide additional classroom space for other departments, cost $750,000; a second unit of the Life Sciences Building, to cost a million dollars and which will house the department of zoology, and either bacteriology or botany; College of Business Administration and Economics, to cost $750,000; Geological Sciences and Petroleum Engineering Building, to cost $850,000; additions to the Men's Gymnasium and the Women's Gymnasium, to cost $300,000 each; a Home Economics Building, one of three to be built on as many campuses and at the same cost, will cost $500,000; new wing to the Administration Building, to cost $250,000. This is in accord with the plan for expansion contemplated when the first unit was built.

Five hundred thousand dollars is set aside for an Education Building, or an Art Building. The present Education Building appears to have been designed primarily to meet the needs of art and music. Hence it is planned to turn this building over to these two departments and build a structure for the School of Education, planned specifically for its own use. The alternate possibility is to build an Art Building, and remodel the present Education Building, leaving the School of Education in the proper location on the campus.

Utilities expansion is planned at a cost of $100,000.

MT HAMILTON CAMPUS

A new and powerful reflecting telescope is proposed for the Lick Observatory on Mt. Hamilton, at a cost of $900,000.

Fire protection and rehabilitation of existing buildings on Mt. Hamilton are included in the program at a cost of $75,000.

SAN FRANCISCO CAMPUS

For improvements on the San Francisco campus there already is available $2,000,000 by Legislative appropriation for a Teaching Hospital; the post-war program appropriates a like sum in addition for the completion of this project, which will be a 500-bed building, the basic requirement.

Also appropriated and available for construction, as soon as it becomes possible, is $90,000 for a laundry, and $135,000 for a generator plant.

A Medical Science Building, to cost $1,000,000, to include a Medical Library and a Museum of Pathology, is proposed, this building to replace the present wholly inadequate and out-dated structures which are not proof against fire, rats, or vermin. The fire threat is real, and losses that might occur would be of irreplaceable materials, particularly in the Library and Museum of Pathology, as well as instruments and valuable records.

Interns' quarters, at a cost of $200,000 are planned for members of the resident staff, impossible either in the old hospital or the new teaching hospital.

A Nurses' Home, at a cost of $500,000, is needed. The new teaching hospital, the present hospital, and the psychiatric hospital will serve as a training school for nurses as well as for physicians. This requires housing facilities for the trainees, and provision is to be made for 300 nurses in a modern building providing approximately 175 rooms with social and recreational facilities. Living quarters for women students in the medical sciences also are contemplated.

SANTA BARBARA CAMPUS

On the Santa Barbara campus, where the Santa Barbara College became a part of the University of California on July 1, $1,500,000 will be spent in post-war construction.

S. C. C. QUESTIONNAIRE

The Southern California Chapter has sent out the following questionnaire:

TO ALL MEMBERS AND ASSOCIATES OF THE SOUTHERN CALIFORNIA CHAPTER, A.I.A.

The Act to provide aid for Cities and Counties in post-war planning will shortly develop into a number of projects throughout the State of California. Your Chapter desires to know which of its members will be in a position to undertake such work in their offices.

	YES	NO
1. Will you be in a position in the next 60 to 90 days to undertake preparation of plans and specifications?		
2. Do you at present maintain an office?		
3. Would you plan to open an office?		
4. What is the maximum number of employees at any one time during last 10 years?		

Please answer the above questions. SIGN this card, and return it to the Chapter office.

The September Chapter meeting will be held on Wednesday, September 6th, at the University Club in conjunction with the Structural Engineers Association and the Producers' Council. A. M. Bowers, of Engineering News Record, will speak on "Observance of an Engineering Reporter on Three Fronts in the Pacific."

PRODUCERS' COUNCIL PAGE

Northern California Chapter

The National Organization of Manufacturers of Quality Building Materials and Equipment
Affiliated with the AMERICAN INSTITUTE OF ARCHITECTS

GEORGE F. SQUIER

To get modest George Squier within range of a camera is no small accomplishment. Almost legendary are the stories of past efforts to do this very thing. But to Partner George Trask goes credit for swinging the deal. And if you don't think we had to literally extract the Squier history we would like to know a better word for it.

The two George's have been associated for ten years as Trask & Squier, representing Fiat Metal Manufacturing Co. of Chicago, and members of the Producers' Council, Inc.

George F. Squier has been the active member in local Council affairs, serving as Treasurer in 1940. He was born in Buffalo, N. Y., graduated from Columbia University and came to San Francisco in 1914 via Chicago, where he started in the steel business to which he has devoted his business life. George and the Mrs. make their home in San Francisco. His hobby? Victory gardening. George, are you kidding?

September 27th is the date for Charter Night ceremonies at the new Portland Chapter, Ray Kingsland announces. Chuck Kraft, director, will make the presentation.

Your Specifications an Asset or a Liability? is the name of a booklet published by the Herman Nelson Corporation back in 1941, which they furnished to school authorities. Copy free on request. Write them at Moline, Illinois. Currently Herman Nelson is plugging the idea of a "base bid and alternate bid" type of specification instead of the "or equal" clause in double page spreads in various trade publications. The "ad" states that they have "maintained for over thirty years that base bid and alternate bid specification are the only ones which allow architects and their clients to obtain at the lowest cost the equipment best suited to their needs.

Not members of the Council, the Herman Nelson Corporation's enthusiastic support of the new bidding practice from a construction industry point of view is far more courageous than anything yet done by any member of either the Producers' Council or the A.I.A., both of which organizations have approved the new procedure.

F. W. "Ted" Morse, vice-president of Chamberlin Metal Weather Strip Co. and a past president of the Producers' Council, Inc., was a recent visitor to the Coast. Ted will be remembered for his presentation to the Chapter of the new bidding practice a year ago.

Modular Planning gets down to cases. Bulletin of the Producers' Council No. 46, going to 10,800 practicing architects, engineers and government construction officials, contains a presentation by the Structural Clay Products Institute which leads the way in adopting Modular sizes for masonry construction.

Also included is a 12-page illustrated pamphlet published by the Council, "Modular Planning as Related to Building Design," an explanation to the architect and engineer of the application to building plans and details of Dimensional Coordination.

Thumbnail Sketches have proven an interesting feature of this "Page." Better acquaintance with the men who have built the Chapter and are still active in its affairs has resulted. Next we are going to give the newer members a "break," the men who are currently coming along as committeemen. Take Norman Brown of Bell & Gossett, serving on the Membership and Attendance Committee, for instance. We'd like to know more about that guy; so, watch this "Page!"

USE QUALITY PRODUCTS — **CONSULT AN ARCHITECT**

PLYWOOD RESEARCH FOUNDATION

Fir plywood manufacturers are girding their interests for peace-time markets even though war needs continue to consume the industry's entire output.

Here are four significant developments disclosed at the recent annual meeting of the Douglas Fir Plywood Association in Tacoma, Wash.:

1. Plywood manufacturers have acquired sizable stands of timber as sources of raw materials.

Thomas B. Malerkey is the new guiding spirit of the Douglas Fir Plywood Association which is sponsoring a nation-wide Plywood Research Foundation. Malarkey is also vice-president of the M. & M. Woodworking Company of Portand, Oregon.

2. They have established a research foundation to develop new wood products separate and apart from lumber, plywood and pulp. (The existing plywood association research laboratory continues to operate on an enlarged scale.)

3. Plywood advertising has been expanded in trade journals as promotion of the industry is intended to tell specifiers now that the material again will serve private builders once military demands lessen.

4. For the first time, the industry promotional organization now is supported by every manufacturer in the 30-plant fir plywood industry. Thus the plywood makers present a "solid front" for the marketing of their product.

Plywood Research Foundation is the name of the new experimental institute financed by the industry to bring greater utilization of Northwest timber through development of additional products. The laboratory will be located at Tacoma; an initial fund of $100,000 has been established, and the subscribers have pledged themselves to continued support of the project.

Newly elected president of the Association is Thomas B. Malarkey, vice president of the M. & M. Woodworking Company of Portland, Oregon.

GUTTERSON RESIGNS, RESUMES PRACTICE

Henry H. Gutterson, West Coast USP top ranking regional executive, has resigned, to resume his private professional practice. Gutterson will start preliminary plans for a number of post-war projects, including college buildings and residences. His Berkeley address is 2922 Garber Street.

ENGINEERS' HONOR ROLL

The following members of San Francisco Section, American Society of Civil Engineers, are in the armed services of the Nation:

United States Army

Lt. Alexander Allison
Lt. M. H. Antonacci
Capt. Edwin W. Barbee
Lt. Julian L. Bardoff
Capt. Charles C. Bayles
Maj. Benjamin Benas
Lt. Col. F. E. Bonner
Maj. John F. Bonner
Lt. Col. George D. Burr
Maj. Paul F. Chenea
Capt. J. Barry Cooke
Sgt. Steven G. Crow
Maj. Joseph D. DeCosta
Lt. J. B. Eckerson
Lt. Col. E. E. Garnett, Jr.
Lt. J. Melvin Gould
Capt. Russell P. Hastings
Lt. James T. Hester
Capt. Clair A. Hill
Maj. B. T. Hudspeth
Capt. H. W. Jorgenson
Maj. Nat. J. Kendall
St. E. Forbes Laflin
Capt. Pierce L. Hussey
Lt. Col. Ross L. Mahon
Capt. John C. Marcroft
Maj. Ferdinand F. Mautz
Maj. T. K. McManus
Capt. F. Montealegre, Jr.
Lt. Chas. D. Y. Ostrom
Robt. F. Parlett
Capt. August H. Rahlves
Maj. Raymond R. Ribal
Lt. V. W. Sauer
Lt. George R. Seaworth
Robert D. Smith
Lt. Dudley F. Stevens
Lt. Morgan E. Stewart
Maj. R. U. St. John
Henry C. Suenderman
Lt. Arthur B. Sullivan
Lt. Col. C. W. Thomas
Maj. Mark E. Thomas
Lt. William R. Tolton
Lt. Col. Ralph A. Tudor
Capt. Cy H. Wainwright
Lt. R. L. Walker
Capt. W. D. Wilkinson

United States Marine Corps

Lt. H. L. Honnold, Jr.
Lt. Kenneth B. Reynolds

United States Navel Reserve

Lt. David R. Allmond, Jr.
Ens. John E. Cahill
Ens. Fred H. Dierker
Lt. Wesley C. Ewing
Lt. Com. T. E. Ferneau
Ens. Richard E. Hall
Lt. Eugene E. Jung
Lt. Charles S. Moore
Ens. Thomas R. Nelson
Lt. W. R. Peters
Lt. Alfred J. Porteous
Ens. Bennett L. Raffin
Lt. Com. W. C. Renshaw
Ens. Jerome L. Salomon
Ens. Samuel Schulz
Ens. Richard E. Stickel
Lt. Robt. S. Thomas
Lt. W. F. Trigeiro
Lt. Cmdr. C. C. Winter

United States Naval Reserve —C. B.

Lt. Com. W. E. Davidson
Ens. Richard F. Lovejoy
Ens. Robert R. Murdoch
Lt. Jack W. Pratt
Lt. J. Myron Tatarian
Ens. Ivan D. Thunder

United States Navy

Ens. Lyle A. Abrott
D. Maurice Berry
Capt. Carl A. Carlson
Lt. Com. John A. Clark
Lt. Com. O. R. Cross, Jr.
Ens. Herbert G. Crowle
Lt. Harold C. Enderlin
Ens. K. J. Friedenbach
Lt. Com. H. H. Gilbert
Ens. Arthur F. Liebscher
Lt. Com. R. MacDonald
Ens. Byron L. Nishkian
Lt. J. F. O'Shea
Lt. Com. F. W. Pritchard
Ens. Norman F. Rau
Lt. Richard L. Ray
Lt. Walter N. Riegelhuth
Lt. John N. Spaulding
Lt. Com. L. J. Stephenson
Lt. Com. G. Q. Thacker

United States Public Health Service

Maj. G. E. Arnold
Maj. William T. Ingram
Lt. Harvey F. Ludwig
Lt. Wm. R. Seeger
Capt. John C. Luthin

Other Services

Capt. Nils Aaronsen, A.M.G.
Lt. Glen E. Logan, U.C.G.
Maj. John G. Marr, A.M.G.
Capt. E. H. Pagenhart, U.S.C. & D.S.

ARCHITECTS LISTED IN NEW "WHO'S WHO"

Of the fifty San Franciscans listed for the first time in the 23d edition of "Who's Who in America," the names of three architects appear. They are Harris C. Allen, Albert J. Evers and John Reid, Jr.

ARCHITECT AND ENGINEER

Estimator's Guide

Giving Cost of Building Materials, Etc.

AMOUNTS GIVEN ARE FIGURING PRICES AND ARE MADE UP FROM AVERAGE QUOTATIONS FURNISHED BY MATERIAL HOUSES TO SAN FRANCISCO CONTRACTORS. 2½% SALES TAX ON ALL MATERIALS BUT NOT LABOR

All prices and wages quoted are for San Francisco and the Bay District. There may be slight fluctuation of prices in the interior and southern part of the state. Freight cartage, at least, must be added in figuring country work.

BONDS—Performance—50% of contract.

Labor and materials—50% of contract.

BRICKWORK—

Common Brick—Per 1M laid—$50.00 to $60.00 (according to class of work).

Face Brick—Per 1M laid—$120 to $150 (according to class of work.)

Brick Steps—$1.60 per lin. ft.

Brick Veneer on Frame Bldg.—Approx. $1.30 per sq. ft.

Common Brick—$19.00 per M, truckload lots, f.o.b. job.

$19.00 per M, less than truckload, plus cartage.

Face Brick—$40 to $80 per M, truckload lots, delivered.

Cartage—Approx. $4.00 per M.

BUILDING PAPER—

1 ply per 1000 ft. roll	$3.50
2 ply per 1000 ft. roll	5.00
3 ply per 1000 ft. roll	6.25
Brownskin, Standard, 500 ft. roll	5.00
Sisalkraft, 500 ft. roll	5.00
Sash cord com. No. 7	$1.20 per 100 ft.
Sash cord com. No. 8	1.50 per 100 ft.
Sash cord spot No. 7	1.90 per 100 ft.
Sash cord spot No. 8	2.25 per 100 ft.

Sash weights, cast iron, $50.00 ton.
Nails, $3.42 base.
Sash weights, $45.00 per ton.

CONCRETE AGGREGATES—

The following prices net to Contractors unless otherwise shown.

Gravel, all sizes—
$1.95 per ton at Bunker; delivered $2.50

	Bunker	Del'd
Top Sand	$1.90	$2.50
Concrete Mix	1.90	2.45
Crushed Rock, ¼" to ¾"	1.90	2.50
Crushed Rock, ¾" to 1½"	1.90	2.50
Roofing Gravel	2.25	2.80
River Sand	2.00	2.45

Sand—

River Sand	2.00	2.45
Lapis (Nos. 2 & 4)	2.85	3.15
Olympia (Nos. 1 & 2)	2.85	3.10
Del Monte White	.84c per sack	

Cement—

Common (all brands, paper sacks), carload lots, $2.42 per bbl. f.o.b. car; delivered $2.72.

Cash discount on carload lots, 10c a bbl., 10th Prox.; less than carload lots $3.20 per bbl. f.o.b. warehouse or delivered.

Cash discount 2% on L.C.L.

Atlas White, Calaveras White, Medusa White } 1 to 100 sacks, $2.50 sack warehouse or del.; $7.65 bbl. carload lots.

Forms, Labors average $200.00 per M.

Average cost of concrete in place, exclusive of forms, 35c per cu. ft.; $10 cu. yd.; with forms, 60c.

4-inch concrete basement floor ..... 30c per sq. ft.

Rat-proofing 7½c

Concrete Steps ..... $1.25 per lin. ft.

DAMPPROOFING and Waterproofing—

Two-coat work, $3.50 per square.

Membrane waterproofing—4 layers of saturated felt, $7.00 per square.

Hot coating work, $2.50 per square.

Medusa Waterproofing, $3.50 per lb. San Francisco Warehouse.

Tricocel waterproofing.
(See representative.)

ELECTRIC WIRING—$12 to $15 per outlet for conduit work (including switches).

Knob and tube average $3.00 per outlet. (Available only for priority work.)

ELEVATORS—

Prices vary according to capacity, speed and type. Consult elevator companies. Average cost of installing a slow speed automatic passenger elevator in small four story apartment building, including entrance doors, about $6500.00.

EXCAVATION—

Sand, 60 cents; clay or shale $1 per yard. Teams, $12.00 per day.

Trucks, $22 to $27.50 per day.

Above figures are an average without water. Steam shovel work in large quantities, less; hard material, such as rock, will run considerably more.

FIRE ESCAPES—

Ten-foot galvenized iron balcony, with stairs, $150 installed on new buildings; $160 on old buildings.

FLOORS—

Composition Floor, such as Magnasite, 33c to 50c per square.

Lineflor—2 gages—$1.25 to $2.75 per sq. yd.

Mastapay—90c to $1.50 per sq. yd.

Battleship Linoleum—available to Army and Navy only—⅛"—$1.75 sq. yd. 1/16"—$2.00 sq. yd.

Terazzo Floors—50c to 70c per square.

Terazzo Steps—$1.75 per lin. ft.

Mastic Wear Coat—according to type—20c to 35c.

Hardwood Flooring—
Standard Mill grades not available.

Victory Oak—T & G	
25/32 x 2¼"	$143.25 per M. plus Cartage
½ x 2"	122.00 per M. plus Cartage
½ x 1½"	113.50 per M. plus Cartage
Prefinished Standard & Better Oak Flooring	
25/32 x 3¼"	$180.00 per M. plus Cartage
½ x 2½"	160.50 per M. plus Cartage
Maple Flooring	
25/32" T & G Clear	$160.50 per M. plus Ctg.
2nd	153.50 per M. plus Ctg.
3rd	131.25 per M. plus Ctg.

Floor Layers' Wage, $1.50 per hr.

GLASS—

Single Strength Window Glass	20c per □ ft
Double Strength Window Glass	30c per □ ft.
Plate Glass, under 75 sq. ft.	$1.00 per □ ft.
Polished Wire Plate Glass	1.40 per □ ft.
Rgh. Wire Glass	.34 per □ ft.
Obscure Glass	.27 per □ ft.

Glazing of above is additional.
Glass Blocks ..... $2.50 per □ ft. set in place

HEATING—

Average, $1.90 per sq. ft. of radiation, according to conditions.

Warm air (gravity) average $48 per register.

Forced air, average $68 per register.

IRON—Cost of ornamental iron, cast iron, etc., depends on designs.

LUMBER—All lumber at O.P.A. ceiling prices—

No. 1 Common	$49.00 per M
No. 2 Common	47.75 per M
Select O. P. Common	52.75 per M

Flooring—

	Delvd.
V.G.-D.F. B & Btr. 1 x 4 T & G Flooring	$80.00
C 1 x 4 T & G Flooring	75.00
D 1 x 4 T & G Flooring	65.00
D.F.-S.G. B & Btr. 1 x 4 T & G Flooring	61.00
C 1 x 4 T & G Flooring	59.00
D 1 x 4 T & G Flooring	54.00
Rwd. Plastic—"A" grade, medium dry	82.00
"B" grade, medium dry	78.50

Plywood—

	Under $200	Over $200
"Plyscord"—3/8"	$49.50	$47.55
"Plywall"—1/4"	45.15	43.30
3 ply—2/s—1/4"	48.55	46.60
"Plyform"—5/8"—		
Unoiled	126.50	121.45
Oiled	127.90	122.75

Above prices delivered if quantity is sufficient to warrant delivery.

Shingles (Rwd. not available)—

Red Cedar No. 1—$6.75 per square; No. 2, $5.75; No. 3, $4.45.
Average cost to lay shingles, $3.00 per square.
Cedar Shakes—Tapered: 1/2" to 3/8" x 25"—$8.95 per square.
Resawn: 3/4" to 1 1/4" x 25"—$10.65 per square.
Resawn: 3/4" to 1 1/4" x 25"—$10.65 per square.
Average cost to lay shakes, $4.00 per square.

MILLWORK—Standard.

O. P. $100 per 1000. R. W. rustic $100.00 per 1000 (delivered).
Double hung box window frames, average with trim $6.50 and up, each.
Complete door unit, $10.00.
Screen doors, $3.50 each.
Patent screen windows, 25c a sq. ft.
Cases for kitchen pantries seven ft. high, per lineal ft., $9.00 each.
Dining room cases, $9.00 per lineal foot.
Rough and finish about 80c per sq. ft.
Labor—Rough carpentry, warehouse heavy framing (average), $40.00 per M.
For smaller work average, $40.00 to $55.00 per 1000.

MARBLE—See Dealers)

PAINTING—

Two-coat work	per yard 50c
Three-coat work	per yard 70c
Cold water painting	per yard 10c
Whitewashing	per yard 8c

PAINTS—

Two-coat work	50c per sq. yd.
Three-coat work	70c per sq. yd.
Cold water painting	per yard 10c
Whitewashing	8c per sq. yd.

Turpentine $1.03 per gal. in drum lots. $1.08 per gal. in 5-gal. containers.
Raw Linseed Oil—not available.
Boiled Linseed Oil—$1.38 per gal. in drums. Available only to work with high priority—$1.48 per gal. in 5-gal. containers.
Use replacement oil—$1.86 per gal. in 1-gal. containers.
Replacement Oil—$1.20 per gal. in drums. $1.30 per gal. in 5-gal. containers.
A deposit of $6.00 required on all drums.

PATENT CHIMNEYS—

6-inch	$1.20 lineal foot
8-inch	1.40 lineal foot
10-inch	2.15 lineal foot
12-inch	2.75 lineal foot

PLASTER—

Neat wall, per ton delivered in S. F. in paper bags, $17.60.

PLASTERING (Interior)—

	Yard
3 Coats, metal lath and plaster	1.50
Keene cement on metal lath	1.80
Ceilings with 3/4 hot roll channels metal lath (lathed only)	1.20
Ceilings with 3/4 hot roll channels metal lath plastered	2.20
Single partition 3/4 channel lath 1 side (lath only	1.20
Single partition 3/4 channel lath 2 inches thick plastered	3.20
4-inch double partition 3/4 channel lath 2 sides (lath only)	2.20
4-inch double partition 3/4 channel lath 2 sides plastered	3.85
Thermax single partition; 1" channels; 2 1/4" overall partition width. Plastered both sides	3.30
Thermax double partition; 1" channels; 4 3/4" overall partition width. Plastered both sides	4.40
3 coats over 1" Thermax nailed to one side wood studs or joists	1.65
3 coats over 1" Thermax suspended to one side wood studs with spring sound isolation clip	1.90

Note—Channel lath controlled by limitation orders.

PLASTERING (Exterior)—

	Yard
2 coats cement finish, brick or concrete wall	$1.00
3 coats cement finish, No. 18 gauge wire mesh	2.00

Lime—$3.00 per bbl. at yard.
Processed Lime—$3.10 bbl. at yard.
Rock or Grip Lath—3/8"—20c per sq. yd.
1/2"—19c per sq. yd.

Composition Stucco—$1.80 to $2.00 sq. yard (applied).

PLUMBING—

From $100.00 per fixture up, according to grade, quantity and runs.

ROOFING—

"Standard" tar and gravel, 4 ply—$8.00 per sq. for 30 sqs. or over.
Less than 30 sqs. $9.50 per sq.
Tile, $30.00 to $40.00 per square.
Redwood Shingles, $7.50 per square in place.
5/2 #1-16" Cedar Shingles, 4 1/2" Exposure ..... $8.00 square
5/8 x 16"—#1 Cedar Shingles, 5" Exposure ..... $9.00 square
4/2 #1-24" Royal Shingles, 7 1/2" Exposure ..... $9.50 square
Re-coat with Gravel $4.00 per sq.
Asbestos Shingles, $23 to $28 per sq. laid.
1/2 x 25" Resawn Cedar Shakes, 10" Exposure $10.50
3/4 x 25" Resawn Cedar Shakes, 10" Exposure 11.50
1 x 25" Resawn Cedar Shakes, 10" Exposure 12.50
Above prices are for shakes in place.

SHEET METAL—

Windows—Metal, $1.75 a sq. ft.
Fire doors (average), including hardware $2.00 per sq. ft.

SKYLIGHTS—(not glazed)

Copper, 90c sq. ft. (flat).
Galvanized iron, 40c sq. ft. (flat).
Vented hip skylights 60c sq. ft.

STEEL—STRUCTURAL (None available except for defense work).

$150 ton (erected), this quotation is an average for comparatively small quantities. Light truss work higher. Plain beams and column work in large quantities $140 per ton.

STEEL REINFORCING (None available except for war work).

$150 to $200 ton, set.

STONE—

Granite, average, $6.50 cu. foot in place.
Sandstone, average Blue, $4.00. Boise, $3.00 sq. ft. in place.
Indiana Limestone, $2.80 per sq. ft. in place.

STORE FRONTS (None available).

TILE—

Ceramic Tile Floors—70c to $1.00 per sq. ft.
Cove Base—$1.10 per lin. ft.
Glazed Tile Wainscot—$1.25 per sq. ft.
Asphalt Tile Floor 1/8" & 3/16"—$ .18 to $ .35 per sq. ft. Light shades slightly higher.
Cork Tile—$ .40 to $ .75 per so. ft.
Mosaic Floors—see dealers.
Lino-Tile, $ .35 to $ .75 per sq. ft.

Wall Tile—

Glazed Terra Cotta Wall Units (single faced) laid in place—approximate prices:

2 x 6 x 12	$1.10 sq. ft.
4 x 6 x 12	1.25 sq. ft.
2 x 8 x 16	1.20 sq. ft.
4 x 8 x 16	1.40 sq. ft.

VENETIAN BLINDS—

40c per square foot and up. Installation extra.

WINDOWS—STEEL—

30c per square foot, $5 for ventilators.

TIMBER ENGINEERING COMPANY OPENS SAN FRANCISCO OFFICE

To meet the increasing demand among architects and engineers for timber technical services on war and private projects, the Timber Engineering Company, Inc., of Washington, D. C., has opened a San Francisco office in charge of Alden K. Smith, service and sales manager for the Pacific Coast. Smith, a native Californian, was employed in the headquarters office of the company until two years ago when he was transferred to Portland to open a branch office in the northwest. His new location in San Francisco will enable him to meet more promptly the technical needs of lumber users. In addition to servicing war time needs of architects and engineers, Smith will also be able to aid them in post-war building programs.

A complete line of TECO connectors and grooving tools will be warehoused for immediate shipment in San Francisco. The company also carries warehouse stocks in Portland.

A product development shop and a wood chemistry laboratory have recently been opened by the company in Washington for the purpose of serving public and private agencies in better wood utilization and for the development of wood products generally. Outstanding among the new equipment of the shop-lab is a 200,000-pound hydraulic testing machine.

The new San Francisco offices are in the Monadnock Building, 681 Market Street.

NEW BUILDING CODE STANDARD

A building code standard, which can be used by cities and towns all over the country, has just been approved by the American Standards Association. The purpose of this standard is to provide for a suitable form of organization for building departments, and for efficient administration of building code work. Building codes are aimed at securing the public safety, health, and general welfare insofar as buildings and other construction are concerned, and the standard—Administrative Requirements for Building Codes—should be particularly valuable to the average town and city which desires to establish an up-to-date system of enforcement.

The new standard was developed under the technical leadership of the American Municipal Association and the Building Officials' Conference of America, Inc. Copies of the standard which defines in broad terms the powers, duties and responsibilities of the enforcing official and covers construction, alteration, repair, equipment, use and occupancy, location, maintenance and demolition of all types of structures, may be obtained for 35 cents a copy from the American Standards Association, 29 W. 39th St., New York.

WHEN THE WAR ENDS

When the war is ended, we will build new cities in patterns that will sustain the happiness of populations, Joseph Hudnut, dean of the Harvard University School of Architecture, Graduate School of Design, believes.

"That is the architecture of materialism," he said in an address in one of a series on "The Trend of Design," sponsored by the Boston Society of Architects.

BEAUTY AS QUEEN

An eminent justice of the New York State Court of Appeals, in a majority decision ordering the removal of a large and particularly offensive billboard erected on the approach to an important bridge across the Hudson River, wrote in part that "beauty may not be a queen, but she is not an outcast beyond the pale of protection and respect. She may at least shelter herself under the wing of safety, morality, or decency."

1944 BUILDING TRADES WAGE SCALES (JOB SITE) NORTHERN CALIFORNIA

Six- and seven-hour day eliminated on all Government Work. A. F. L. - O. P. M. Agreement calls for eight-hour day.

NOTE: Predeterminations by the Department of Labor, as of July 1 (the wage-freezing date) have not yet been made in all of the counties listed. The wage scales shown are those being paid and in effect mostly by agreement between employers and their union.

CRAFT	San Francisco	Alameda and Contra Costa	Fresno	Marin	Sacramento	San Jose	San Mateo	Vallejo	Stockton
ASBESTOS WORKERS	1.50	1.50	1.25	1.50	1.50	1.25	1.50	1.50	1.25
BRICKLAYERS	1.87½	1.87½	1.75	1.87½	1.75	2.00	1.79-1/6	1.75	1.50
BRICKLAYERS, HODCARRIERS	1.40	1.40	1.05	1.40	1.05	1.50	1.35	1.50	1.14
CARPENTERS	1.50	1.50	1.25	1.43¾	1.37½	1.37½	1.43¾	1.50	1.37½
CEMENT FINISHERS	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
ELECTRICIANS	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70
ELEVATOR CONSTRUCTORS	1.75½	1.75½	1.75½	1.75½	1.75½	1.75½	1.75½	1.75½	1.75½
ENGINEERS: MATERIAL HOIST	1.50	1.50	1.25	1.50	1.37½	1.62½	1.50	1.37½	1.25
PILE DRIVER	1.75	1.75	1.60	1.75	1.75	1.75	1.75	1.75	
STRUCTURAL STEEL	1.75	1.75	1.60	1.75	1.75	1.75	1.75	1.75	1.60
GLASS WORKERS	1.40	1.40	1.12½	1.40	1.12½	1.21	1.40	1.40	
IRONWORKERS: ORNAMENTAL	1.60	1.50	1.60	1.50	1.60	1.31¼	1.50	1.50	
REINF. RODMEN	1.50	1.50	1.60	1.50	1.50	1.60	1.50	1.50	1.25
STRUCTURAL	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.37½
LABORERS: BUILDING	1.00	1.00	.90	.87½	.95	.90	.93¾	.90	.90
CONCRETE	1.00	1.00	.90	.87½	.95	.90	.93¾	.95	1.00
LATHERS	1.75	1.75	1.50	1.75	1.60	1.75	1.75	1.75	1.75
MARBLE SETTERS	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
MOSAIC & TERRAZZO	1.25	1.25	1.12½	1.25	1.15-5/8	1.12½			
PAINTERS	1.50	1.50	1.28-4/7	1.50	1.43	1.50	1.42-6/7	1.64-2/7	1.37½
PILEDRIVERS	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54
PLASTERERS	1.75	1.83½	1.75	1.75	1.75	2.00	2.00	1.75	1.83-1/3
PLASTERERS' HODCARRIERS	1.50	1.60	1.40	1.50	1.18¾	1.50	1.75	1.50	1.50
PLUMBERS	1.70	1.70	1.53-1/8	1.70	1.68¾	1.62½	1.70	1.70	1.50
ROOFERS	1.50	1.50	1.25	1.37½	1.37½	1.37½	1.25	1.37½	1.37½
SHEET METAL WORKERS	1.50	1.50	1.50	1.50	1.50	1.50	1.37½	1.50	1.50
SPRINKLER FITTERS	1.58	1.58	1.53-1/8	1.70	1.68¾	1.62½	1.70	1.70	1.50
STEAMFITTERS	1.75	1.75	1.53-1/8	1.70	1.68¾	1.62½	1.50	1.70	1.50
STONESETTERS (MASONS)	1.87½	1.87½	1.50	1.75	1.75	1.50	1.75	1.75	1.50
TILESETTERS	1.50	1.50	1.37½	1.50	1.37½	1.50	1.50	1.50	1.37½

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HOMES MUST BE PLANNED AHEAD

Homes of the future must be planned in advance if they are to achieve their maximum in comfort and efficiency, according to John H. Squires, field supervisor of the Better Homes Department of the Westinghouse Electric and Manufacturing Company.

Electricity is the cheapest of all servants, Mr. Squires says, but even modern houses seldom are properly wired or designed to utilize it completely. And unless plans are made for the future when houses will be built again, these much talked-of post-war homes won't be able to utilize the conveniences the electrical engineers and manufacturers will make available. That women shall lead in the cooperative city planning that must precede better-planned homes, is his hope.

City planning, he said, like the individual home, must be based on a pooling of ideas by all the people who will live there. Thus the architect, banker, builder and public utility must join with the owner in anticipating the home of "194X." An efficiently-designed house that incorporates every conceivable electrical device will prove unsatisfactory if the wiring, with only enough circuits to accommodate the minimum load, furnishes insufficient power for their operation.

If the house is designed to receive them, Mr. Squires said, the familiar appliance of today, streamlined and improved, will be supplemented by many devices now unavailable or economically impractical. A forced air system will furnish warm air in winter, cool air in summer, and clean air all year—for attached to it will be a Precipitron electric cleaner to remove smoke, soot, dust and hay fever pollen from air supplied to the entire house.

Freeze lockers to proserve food, Sterilamps to kill germs, fluorescent lighting to save sight and add decorative color, electric dishwashers and refuse dispensers to help with the chores, and Laundromats that will automatically wash, rinse and dry clothes, will be commonplace tomorrow, according to Mr. Squires.

"The building industry has made plans to speed up the conversion from war products to the needs of the home with a minimum of time and unemployment," he said, "and this means that the manufacturer must get back into production of articles he made before the war. It is inevitable that the equipment and appliances first placed on the market will be the same or similar to those used in 1942. They may carry a new dress, but fundamentally they will be the same.

War controls will not be relaxed overnight even after German surrender. Food rationing may continue until the first full European harvest has been reaped; priority controls are to be eased gradually to avoid dislocation; and price controls may be amended to include "floors" as well as "ceilings" to avoid any major price disruption from surplus materials.

AWARDED ARMY-NAVY "E"

Impressive and colorful ceremonies at the Glendale plant of General Controls Co. marked the Army-Navy

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"E" award to the company for excellence in producing automatic controls for aircraft and ordnance.

Major Howard H. Adams, District Public Relations Officer, A.A.F., Materiel Command, was master of ceremonies. Main address and presentation were made by Major Justin C. Gunnison, A.A.F., 12th Air Force, who has to his credit a total of eighty bombing missions in the Mediterranean theater. W. A. Ray, President and Chief Engineer of the company, accepted the award, pledging continued effort and performance on the part of all 800 men and women of General Controls.

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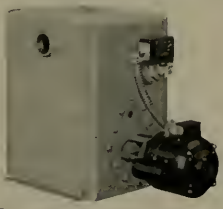

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PLEA FOR MODULAR DESIGN

Architects and engineers are urged by The Producers' Council to help reduce post-war building costs by adopting dimensional coordination through modular design of buildings of all kinds to be built after the war.

In a letter addressed to 10,000 designers, James W. Follin, the Council's managing director, stated that architects can give valuable impetus to the project by notifying manufacturers of building products that there will be a demand for materials and equipment with coordinated dimensions.

"Since the cost of construction after the war is expected to be at least 30 per cent higher than pre-war costs, owing to the rise in the general level of wages and commodity prices, it is imperative that the construction industry take advantage of every desirable economy as a means of counteracting the price increases," Follin said.

"By designing projects on the modular basis, in accordance with the principles of dimentional coordination, architects will save time in layout and detailing and in their supervision of the construction. In addition, the system of coordinated dimensions means better quality in construction because less is left to chance when the building products are fitted together on the job.

"Perhaps the greatest saving will result from the fact that, when materials and equipment are made with adequate regard for the dimensions of other products with which they must be combined in various types of structures, there will be less waste of materials and less time lost by workmen in cutting and fitting.

"Additional economies will result in the manufacture of building products, since producers of materials and equipment will have fewer sizes to manufacture and keep in stock, and the smaller number of sizes to be made will permit a greater degree of mass production, which brings a still further reduction in cost.

"Manufacturers of structural clay products already have agreed to adopt coordinated dimensions for

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post-war brick and tile. Having approved modular masonry based on the standard 4-inch module, they thus have provided the first step for coordination of related products. Manufacturers of wood and metal doors and windows are intensively studying sizes for coordination, and studies are under way to develop suitable dimensions for other building materials and equipment."

HEATING RESEARCH

At its semi-annual meeting in Grand Rapids, Michigan, the Committee on Research of the American Society of Heating and Ventilating Engineers, 51 Madison Avenue, New York City, made grants of nearly $10,000 for cooperative research covering ten projects and seven universities, according to the announcement of G. L. Tuve, chairman.

Important studies that will affect war production industries and influence the kind of heating and air conditioning that we shall have after the war are scheduled at Cornell University, Ithaca, New York; Case School of Applied Science; Cleveland; University of California, Berkeley; Oregon State College, Corvallis; University of Minnesota, Minneapolis; University of Pennsylvania, Philadelphia; Texas A. and M., College Station. These agreements cover the period commencing July 1 and represent the beginning of a program that involves the investigation of over thirty projects at the Society's research laboratory in Cleveland and in various universities and colleges under the direction of Cyril Tasker, director of research.

JOSEPH B. DeREMER

Joseph Bell DeRemer, 72, who practiced architecture in Los Angeles from 1912 to 1918, died at Grand Forks, North Dakota, February 16. He was a graduate of Columbia University. When building was suspended on account of the first World War he closed his office in Los Angeles and went east, later resuming practice at Grand Forks with his son, Sam DeRemer. His most important commission was North Dakota's $2,000,000 state capitol.

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• ARCHITECT AND ENGINEER

Vol. 158 No. 3

RED W. JONES, Editor — MARK DANIELS, Associate Editor — MICHAEL GOODMAN, Post-War Planning — E. N. KIERULFF*, Ass't Editor

★

SEPTEMBER

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★

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RUNNING FIRE — by MARK DANIELS

• *AN APOLOGY*

The item "Useless Laws," in last month's RUNNING FIRE, seems to have been much, if not entirely, misunderstood. There was no intent to criticize or condemn the so-called Field Bill for the safety of design and construction of public school buildings, or its administration or enforcement. It was intended to call attention to the report of George B. Martin, published at some length by the daily press. Perhaps if more quotation marks had been used the intent of the item would have been obvious. However, that it was misinterpreted is apparent, for which I am truly sorry. In a forthcoming issue of RUNNING FIRE, when the "dead line" is not at hand, will appear a full explanation and apology for having written an item that could be so easily misunderstood.

• *MAN (?) POWER*

The Roy F. Wilcox Company of Montebello has a unique way of meeting the man-power shortage at their nurseries. Fortunately a large percentage of the men they employ come under the classification of unskilled labor. But to keep such a nursery as theirs in the condition demanded by their trade and Mr. Wilcox, takes a hundred or more men and, as far as employment bureaus are concerned, such a block of labor "just ain't." They are only found among that group who either can't, don't or won't do steady work.

Such men live from day to day, from hand to mouth, which latter place they usually find by crooking the elbow. Seldom does one of them have enough money ahead to carry through the day—and night. Their union headquarters is called "Skid Row." So, early each morning manager Tom Edwards dispatches his truck to "Skid Row" where he picks up as many as he can who will work for a day's pay, that they may eat and sleep that night. They are fed that day at noon, paid off in cash that night. Strange to say, some of them come back the next day and, stranger to say, some of them do a fair day's work. That may be a costly way to fight the man-power shortage but it may start a man here and there along the road to self respect and a better life.

• *T. L. M.*

The Little Man deposited a handful of sheets of paper scribbled, on both sides, on the bar and, in a firm voice, called to the incomparable Al, "Give, sell, or vend to me at once 480 minims of 100 proof, straight, bonded."

"What the devil is a minim?" asked Al.

"A minim, my dear Al, is a sixtieth of a drachm," replied the Little Man.

Al said, "So what?"

"To make it clear and simple, a drachm is an eighth of an ounce, which in turn is a quarter of a gill as everyone should know who has to use this cursed English system of weights and measures. It is fortunate that I am not buying in quantity else you might find yourself floundering amongst tierces, puncheons and tuns. Or imagine your dilemma if you had to calculate the price of a fifth of liquor at the same rate per unit as a pint for two dollars and fifteen cents. Before you reach a solution you will take oath never to deal in dry weights with its quintals, stones and bushels. It is said that no good can come from war, but if this one results in the adoption of the Metric System it will be worth it. Do I get my drink?"

"What you need is a shot," said Al, as he slid one over the bar to The Little Man.

• *AS THE BANKERS SEE IT*

The enemy came down on us with a frontal attack of three billion dollars. We held them with an equal force of liquid funds until we could outflank them with a five-billion-dollar bond issue. When he had spent his force down to the last hundred million we loosed on him a flood of war savings which turned his home financial wing. Unable to find any more sinews of war other than safety deposits, the enemy was forced into bankruptcy and a debacle ensued.

The enemy lost $2,895,000,000. Our losses were $3,000,000,000 and a bond issue. It was a sweeping victory.

• *A NEW KIND OF ZONING*

It has been suggested that if the architects cannot find some way to ameliorate the bitter war between the pro- and anti-modern schools of architecture, the proper authorities zone the areas in which only one type of structure can be built. This, at least, would put a partial stop to the curse of propinquity that has so often been the ruination of both types. No longer would we find a pitched roof mid-Victorian draped in jig-saw ornament, elbowed by a flat-topped box-like house with windows in the roof. All streets entering each zone could be labeled, MODERN or NON MODERN, and the visitor could take his own chances. Of course, it might be difficult to get around a zone if you couldn't stand a trip through it, but this would increase the revenue of the municipal railways. Perhaps most of the trouble could be avoided by having good architects design the houses in the city, but San Franciscans like to learn the hard way.

PARKMERCED HOUSING PROJECT

(See Pages 14-22)

ARCHITECTS: Leonard Schultze, Lloyd Morgan, E. V. Meroni and William Sunderland of New York City (Practicing under the firm name of Leonard Schultze and Associates).
RESIDENT ARCHITECT: Frederick H. Meyer of San Francisco.
CONSULTING STRUCTURAL ENGINEER: H. J. Brunnier of San Francisco.
CIVIL ENGINEERS: Punnett, Parez & Hutchison of San Francisco.
MECHANICAL ENGINEERS: Leland and Haley of San Francisco.
TRAFFIC EXPERT: Miller McClintock of New York City.
LANDSCAPE ARCHITECT: Thomas D. Church of San Francisco.
CONTRACTORS: Starrett Brothers and Eken, Inc., of New York City.
OWNERS: Metropolitan Life Insurance Company.

SOME FINE EXAMPLES OF BRAZILIAN ARCHITECTURE AT PALACE MUSEUM

An exhibition of exceptional interest to architects is showing all of this month and extending to October 15, at the California Palace, Legion of Honor. It is entitled, "Brazil Builds," and consists of photographs and models gathered for the Museum of Modern Art, New York, by Professor Philip L. Goodwin, R.A.I.A., who spent several months in Brazil a year ago, making a survey of the country's architecture. San Francisco is indeed fortunate in being included in a nation-wide tour of this outstanding collection.

The Brazilian Government leads all other national governments in the Western Hemisphere in its discriminating and active encouragement of modern architecture.

Although the emphasis is on modern building in Brazil, most of it erected in the last decade, the older architecture has not been neglected in the show which embraces a period of almost three centuries, from 1652 to 1942. Brazil's beautiful old buildings, its early churches with their elaborate gold-encrusted interiors and the picturesque fazendas comprise almost a third of the exhibition. The exhibition is composed of enlarged photographs, architectural renderings, drawings, plans, maps and models.

When he made his survey of Brazilian architecture, Mr. Goodwin was accompanied by G. E. Kidder Smith, A.I.A., who is well known as an architectural photographer. The 300 pictures in the exhibition have been selected largely from the thousand or more black and white and color photograps made by Mr. Smith in Brazil.

The first section of the exhibition is devoted to the colonial architecture of Brazil. This is followed by several sections of modern architecture: government buildings, transportation buildings including seaplane base and hangars, and a section on schools. The central section of the exhibition is devoted to Brazil's great contribution to modern architecture: the control of heat and light externally through sun breaks rather than internally through expensive artificial air cooling or inadequate venetian blinds. In this section a model shows the principal types of Brazilian sun breaks, especially louvers which may be fixed or movable, vertical or horizontal.

"Brazil Builds" Exhibition at Legion Palace, San Francisco

OFFICE BUILDING, SAO PAULO
Romos de Azevedo, Architect

"Brazil Builds" Exhibition at Legion Palace

CASINO, PAMPULHA, BELO HORIZONTE
Oscar Niemeyer, Architect

Following the section devoted to Brazil's use of the sun break, the exhibition next continues with a group of miscellaneous modern buildings, such as the Institute of Snake Serums, a water tower and an anatomical laboratory. Succeeding galleries show hotels, apartments and private houses. A section of recreational buildings follows, showing the casino near Belo Horizonte, a yacht club and restaurant. The final section is devoted to views of a day nursery housed in the most modern of buildings.

GEORGE CHANN HOLDS ONE-MAN SHOW AT M. H. DE YOUNG MUSEUM

George Chann, whose oils were shown at the de Young Museum recently, was born in Stockton, California, although he received a great part of his education in China, enrolling as a student at the Sun Yat-Sen College in Canton. Upon completion of his course, he returned to the United States to study art at the Otis Art Institute in Los Angeles under the painters, Edouard Vysekal and Alexander Brook. Later, he became a faculty member.

Though a man in his early thirties, Chann is already represented in the permanent collections of West Coast museums, as well as in several important private collections. He has exhibited in numerous group shows and has previously held one-man showings at the Legion of Honor in San

Largest Masonry Constructed Job in San Francisco in 15 Years

Garden view, row of community apartment houses, Parkmerced, San Francisco

SIX MILLION REMILLARD - DANDINI COMMON BRICKS USED IN THE PARK MERCED COMMUNITY APARTMENTS

Remillard-Dandini Bricks were selected by the architects and engineers for their fire-proof and time saving construction features.

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Francisco, the Los Angeles County Museum, the San Diego Gallery of Fine Arts, and more recently at the Newhouse Galleries in New York City.

The works exhibited at the de Young Museum included oils of Chinese, Mexican and American Subjects. And besides the many interesting portraits and figure studies were several excellent still lifes and landscapes. His portrayals of small and pathetic Chinese and Mexican children were particularly appealing.

ABSTRACT AND SURREALIST ART IN THE UNITED STATES

This important exhibition of Abstract and Surrealist Art in the United States, displayed at the San Francisco Museum of Art until September 24, grew from the desire of a group of museums to review these trends in the art of today.

Examples were selected by Mr. Sidney Janis, who will soon publish a book on the subject, and collected by the San Francisco Museum of Art from artists, collectors, museums and galleries. It has already been shown in five other museums and completes its tour here.

In his foreword to the catalog of the exhibition, Mr. Janis says, "Appreciation of Twentieth Century Art in America got its first strong impulse from the small but intensely controversial section of the International Exhibition of Modern Art—the 'Armory Show'—held in New York in 1913. There most of the artists, both European and American, concerned with converting into visual form vitally new experiences, were presented and no single event in American art history hit with greater impact upon public and painter alike." Later "museums from coast to coast began to exhibit and acquire works of this nature . . ."

Legion of Honor Palace, San Francisco

FAWNS PLAYING — **Anna Hyatt Huntington**

BIDDLE WAR DRAWINGS AT S. F. MUSEUM OF ART

Death and wearniness and destruction are in every line of George Biddle's twenty drawings of war scenes now on display at the San Francisco Museum of Art. These are intimate sketches, done under shell fire, in field hospitals, in cemeteries behind the lines in North Africa and Italy. The very simplicity and unassuming quality of these pictures of tired soldiers, Arab grave-diggers and homeless peasants give them compelling force. They speak as vividly as a soldier's letter from the front.

Mr. Biddle was one of forty artists assigned by the War Department to picture war scenes. He lived and worked with every unit in the Mediterranean except one, during the eight months he spent in Africa, Sicily and Italy. Biddle says, "In drawing these boys I was not interested in the mechanics of war. I wanted the human faces, the suffering, the death. And I wanted all the little incongruities which make a war seem like 'Alice in Wonderland' played in a mad house."

George Biddle, brother of Attorney General Francis Biddle, recent visitor to San Francisco, was born in Philadelphia in 1885. His paintings are in the collection of many major museums, among them the Metropolitan, the Chicago Art Institute and the Whitney Museum. He is now in Mexico with his sculptress wife, Helene Sardeau, where they are executing a project at the invitation of the Mexican Minister of Education.

CALIFORNIA SCHOOL OF FINE ARTS BEGINS FALL SESSION

The fall and winter sessions at the California School of Fine Arts began August 21 and will continue up to December 23. Classes covering complete courses for beginning and advanced students are held Monday through Friday, 1 to 4; Monday, Tuesday and Thursday, 9 to 12, and Monday, Wednesday and Friday evenings from 7 to 10. The day school offers life drawing and painting, composition and drawing, history of art, and sketch class. Elementary drawing and design are taught at the night sessions.

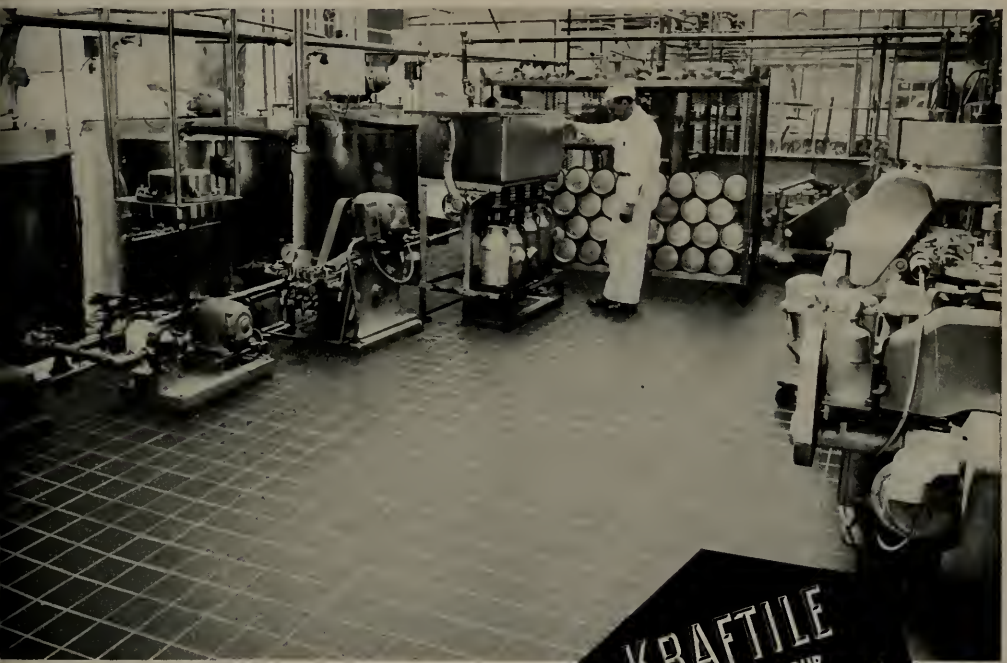
ART NOTES

Arthur C. Devlin, president of the Crocker Art Gallery, Sacramento, has announced the appointment of Dr. Frederick P. Vickery, professor of geology at the Sacramento College, to succeed the late Harry Noyes Pratt as director of the local museum. The new director plans to continue the policies of correlating the arts and will hold literary and music events at the museum as before.

Henri De Kruif, California artist, died in Los Angeles on July 6, following a long illness. He was twice president of the California Watercolor Society and a vice president of the California Art Club. Although ill health dogged his career, he was productive of good paintings and prints. De Kruif is represented in the Library of Congress, Los Angeles County Museum and other museums and collections in the West.

KRAFTILE SOLVES FLOOR PROBLEM AT DAIRY

The Bell-Brook Dairy of San Francisco had a problem with their floor in the pasteurizing and filling department. They required a surface which was easy to keep clean, attractive and one which would give complete and permanent protection against the deteriorating effects of lactic acid. To answer all of these specifications, KRAFTILE Vitreous Quarry Tile was installed with Nukem Standard Basolit acid-proof jointing compound and is proving most satisfactory.



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IN THE NEWS

PREDICTS WAR'S END THIS YEAR

According to Dr. Rufus B. von KleinSmid, President of the University of Southern California, the war in Germany will be over by Thanksgiving while the war in Asia will end by Christmas This optimistic forcast was made by the good doctor in the course of an address on "The Philosophy of Architecture," at a joint meeting of Southern California Chapter, A.I.A., and the Southern Section of the State Association of California Architects. The meeting was held August 8 at the School of Architecture, University of Southern California.

Aside from his prophecy as to the termination of the war, Dr. von KleinSmid discussed the future with particular regard to problems relating to architecture in the post-war era and at the same time pointed out how architecture could be an important factor in obtaining "gracious living and a more abundant life."

The doctor addressed a capacity crowd of architects and guests, a goodly number of whom were alumni of the University.

ARCHITECTS ENDORSE METRIC SYSTEM

Increased use of the metric system, especially by manufacturers of building material, is expected to develop in this section as the result of a resolution adopted by the Southern California Chapter. The American Institute of Architects, at its last regular meeting, indorsing the metric system and urging that it be utilized to supplant the English system of measurement.

In adopting the resolution the architects called special attention to the fact that the metric system is in general use throughout Latin Americe and that its use by Southern California manufacturers of building material would, therefore, be a contributing factor to the expansion of trade between this country and the Latin nations.

MARSTON HEADS PLANNING COMMISSION

Sylvanus B. Marston, architect, Los Angeles, has been reappointed chairman of the Pasadena City Planning Commission. Mr. Marston gave up the same position temporarily at the outbreak of the war to take charge of an important war program.

For the past two years he has been a member of the National Architectural Accrediting Board whose function is the rating of colleges of architecture in the higher educational institutions throughout the country.

WURSTER ASSUMES NEW POST SHORTLY

William W. Wurster, recently appointed Dean of the School of Architecture at the Massachusetts Institute of Technology, Boston, has been busy winding up important work in his San Francisco office, preparatory to leaving for Boston the end of the month to assume his new duties.

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IN THE NEWS

EDITORIAL CHANGE

After 38 years of editing Architect and Engineer, Fred W. Jones retires with the current issue. Mr. Jones came to Architect and Engineer when it was three months old, leaving the city editorship of the Los Angeles Herald to join the staff of Colonel E. M. C. Whitney, founder of the magazine. Every issue since then has been edited by Mr. Jones who successfully produced the book through strenuous months of earthquake, fire, depressions, and two wars. Unusual for one engaged in editorial work, Mr. Jones has been a go-getter in the advertising department, has probably written as many contracts in this branch of the publishing business as any advertising specialist on the Pacific Coast.

In recognition of his work, the following fine compliment was paid Mr. Jones by Kenneth Reid, editor of Pencil Points, one of the nation's outstanding architectural journals:

"I regret to hear you are retiring from active editorial work on The Architect and Engineer. You have certainly carried on effectively there for many years and your name will be missed from the masthead. I hope the architects out there properly appreciate the splendid services you have given them during all these years."

MacCORNACK PROPOSES UNION STATION

A union railroad station, in Copley square, Boston, with space for modern hotels, department store housing, and other commercial, civic and artistic improvements, all provided through the agency of a non-political nonprofit association of the citizens of Greater Boston, is the proposal of Walter R. MacCornack, F.A.I.A., vice-president of The American Institute of Architects and former Dean of the School of Architecture at Massachusetts Institute of Technology.

MacCornack made the proposal in an address before a recent meeting of the Building Officials Conference of America, Inc., in Boston.

C. A. CAULKINS REOPENS OFFICE

C. A. Caulkins, architect, of Santa Rosa, has resumed his architectural practice after two and one half years with the Twelfth Naval District as supervising architect. Readers of Architect and Engineer are familiar with Caulkin's work in the Santa Rosa area, an issue of the magazine featuring his buildings having been published some years ago. Caulkins has again taken offices in the Rosenburg Building, Santa Rosa.

ENGINEERS PLAN IMPORTANT MEETING

Regular meeting of the Structural Engineers Association of Northern California, scheduled for early in the month, has been changed to September 20. This will be a large joint engineering meeting with a nationally known speaker as guest of honor.

Selling Feature or Handicap?

Tomorrow's home will use more electrical conveniences than ever before. New and better appliances, available for practically every household task, new and better lighting equipment, will all depend upon Adequate Wiring for satisfactory operation.

The two-wire electrical service equipment, with Number 14 wire, in the average home today will be completely inadequate to provide for electrical demands of the postwar home. Overloaded circuits will result in unsatisfactory service, waste of current and even danger.

Inadequately wired new homes in 194X will be obsolete before they are lived in. They will be neither satisfactory nor salable.

That is why architects and builders today are placing Adequate Wiring at the top of the "Must" list, specifying wiring of sufficient size, more convenience outlets, more circuits and better switching — a complete electrical "Service entrance" for future needs.

Such an Adequate Wiring plan will enhance the value of the home for years to come, and will prove worthy of the architect who designed it.

ADEQUATE WIRING SERVES AND SAVES — THE KEY TO THE HOME OF TOMORROW

NORTHERN CALIFORNIA ELECTRICAL BUREAU
1355 Market Street
San Francisco

MRS. GRUNDY ON MODERN ART

A modern painting seems to me
Done by a monkey in a tree,
Who sways gently by his tail
Looks down on distant hill and vale
And with a dexterous use of paint
Recorded things that are as ain't.
The things that are, if you are wise,
You will not fail to recognize;
May seem unreal and just a blur
Of doubt, a slight confusion,
Creating thus the mild illusion
That Modern Art, in some degree;
Is more than what it seems to be.
Or may be, after all, it's less;
A sort of happy carefree guess
Of this and that in right proportion,
Yet suffering a slight distortion,
So that the artist may be free
To climb, perhaps, a higher tree,
And hanging from a tail that's longer
Paint better pictures, stranger, stronger,
Composed of entertaining quirks
With paint applied with sudden jerks
In free artistic intuition
Which somehow stand for composition.
Or he may shift without restraint
And use a super-plastic paint
That makes his pictures look and feel
A whole lot realer than the real.
And thus the super-real will stand
For visions of a no-man's land,
A land of phantasy where dwell
The whimsy one's 'twixt heaven and hell,
The fancy stuff that just abuts
The borderline of being nuts.
The next step toward the Great Unknown,
Out of the cube and sphere and cone,
Is what the modern painters list
Under the name Abstractionist.
What he abstracts while he's abstracting
Is just a personel reacting
In terms of cold geometry
While hanging from that self-same tree
Of art. Yet he must swing
In swirling arcs that somehow bring
A lilt and tilt that otherwise
Never would materialize
And add another charming phase
To Modern Art's amazing ways.
And now to close this compact history
Of Modern Art's impressive mystery
In introduce the artist guy
Who paints the nothing and the why,
The wherefore or the what or who,
In fact just anything will do
So long as it doesn't show a trace
Of subject, object, time or place.
Needless to say of him that he
Swings from a non-objective tree
And occupies a vacuum
Of nothingness, and oh what fun
To sit around all day and paint
The everlasting things that ain't!

—ANDRÉ SMITH

in "Modern Art."

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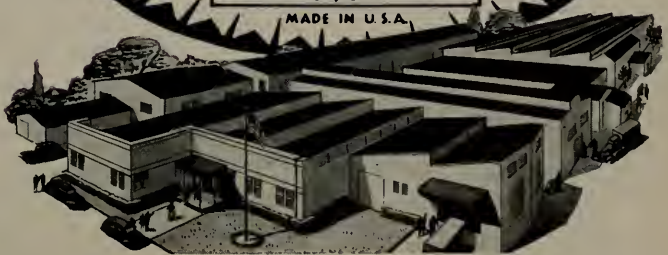

Offices in Principal Western Cities — Branch and Warehouse in San Francisco

IN THE NEWS

ROGER ALLEN TELLS EDITOR SAYLOR

Henry H. Saylor, editor of the Journal of The American Institute of Architects, asked Roger Allen, the Detroit architect-columnist, what he disliked about the new Journal. Here is a brief summary of his reply:

"The Journal could be different. It could, for instance, find out and print what the younger men think about the profession. What they actually think, if you could get them to tell it, is not what you might expect. There are a lot of things they don't like and want to see changed. They don't think The Institute is doing much for them, and until The Institute finds out what they want done, naturally it will never be able to do it. They do not feel that membership in The Institute is a sort of Phi Beta Kappa recognition, awarded to aged and well-behaved architects just before they sink into the tomb—a view fortunately now on the way out, anyway—but they think of it as it ought to be: the articulate power of the profession.

"You could do a little debunking on some of the 'city planning' theories now floating around. City planning, it seems to me, is too often a pathetic combination of hope and horsefeathers. The best of it is very good, but some of it is horribly naive.

"You could find out if it is true, as a writer said in a recent article in the Bulletin of the Michigan Society of Architects, that the average age of architects registered in California, under the present registration procedure, is 50 years. If it is, there is something wrong somewhere.

"You could make the Journal into something real and vital, something that would cause subscribers to exclaim, as the mailman deposited it on their desks, "Strike up the band; here comes a Saylor." You could do that, for you have the equipment to do it, but you won't do it with a scissors and sitting in Washington. It is going to take a lot of legwork. You can't act like a columnist (me, for instance) because, as my colleagues on The Press point out, a columnist is merely a newspaperman whose legs have gone back on him."

CHANGES IN CONTRACTORS' LICENSE BOARD

Election of Chris D. McKeon to chairmanship of the California Contractors' State License Board, and appointment of H. Cedric Roberts to fill a vacancy on the Board, was announced last month by Gov. Earl Warren, following the annual meeting of the Contractors' State License Board. Jess Worthington of San Diego becomes vice chairman. The seven-man Board is a non-salaried group of engineering, building and specialty contractors who direct the policy of the Contractors' Division of the State Department of Professional and Vocational Standards.

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Fiberglas PF Pipe Insulation is exceptionally lightweight, consisting of fine glass fibers bonded with a thermosetting binder and molded into hemi-cylinders and segments.

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3. Metal Mesh Blankets—With mesh wire or expanded metal on one or both sides. Light weight, and easily applied. 2 ft. x 4 ft. and 2 ft. x 8 ft. In standard thicknesses. Two types: For temperatures up to 600° F. and 1000° F.

4. Blanket Type Pipe Insulation—With mesh wire on outer side to wrap around pipe and secure with wire through special edging. Manufactured in 2-ft. sections for pipes over 3″ O.D. Will withstand temperatures up to 1000° F.

5. Insulating Cement—For insulating fittings, valves and all irregular surfaces. Highly efficient . . . withstands temperatures up to 1200° Fahrenheit.

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8. PF Board—Manufactured in 5 densities from 2½ to 9 lbs. per cu. ft.—standard sizes 24″ x 48″, 1″ to 4″ in thickness. For insulated panels, sound absorption and various structural applications.

9. PF Roof Deck Insulation—9 lb. density with facing to facilitate mopping. Highly efficient, fireproof, rotproof and moisture-resistant board, for application under industrial built-up roofings. Sizes 24″ x 48″. Thicknesses from 3/16″ to 2″.

To help you make the proper selection, a "Fuel Savings Calculator" is available for determining heat loss, fuel savings and other factors. Write us for one.

ARMY E NAVY

FIBERGLAS

*Trade Mark Reg. U. S. Pat. Off.

INDUSTRIAL INSULATIONS

ONE OF MANY INTERESTING DETAILS AT PARKMERCED, SAN FRANCISCO
LEONARD SCHULTZE AND ASSOCIATES, ARCHITECTS (See Page 3)

PARKMERCED

San Francisco's First All-Rental Community Housing Project

By MARK DANIELS

The problem of shelter covers a field as wide as time itself. From a lone cave on the peak of a lofty cliff to the penthouse atop a sixty-story hotel, shelter is the fundamental consideration. It runs the gamut of the detached house, the chateau, the city mansion, the apartment house, and the community group. So far, we have not devised a plan that is satisfactory to all. If you want a home detached from close neighbors and their habits, you must forego the advantages of community economy. The isolationists are not all in politics.

It is the effort to devise an arrangement of house and grounds so as to provide a maximum of privacy, comfort and shelter at a minimum of original outlay and subsequent maintenance, that has led to the multitudinous plans for subdividing land and building houses on lots no wider than the houses they accommodate, that has culminated in those execrable rows of "story-and-a-half" houses that form such an excellent foil to bring out the merits of San Francisco's newest housing project, "Parkmerced."

Since this is exclusively a rental project, it should be considered only in comparison with other housing and shelter accommodations that are offered for rent. Thanks to the rapidly increasing number of government requirements for reports, taxes, regulations and heaven knows what, the number of people who prefer to rent rather than own property is increasing by leaps and bounds in the cities, and this is the class of people to whom Parkmerced makes its direct appeal. No one questions that most people would prefer the privacy of their own home and the freedom of their own way of living if they could afford it and if they could take it on the chin from the local and Federal governments, but the fact remains that fewer and

PHOTOGRAPH OF ORIGINAL MODEL OF PARKMERCED PROJECT, S. F.

Final Plot Plan upon which construction has been carried out.

Working Plan of a typical pii unit.

Two views of Parkmerced project, showing varied entrance treatment.

fewer can. So they turn to the project that will give them nearest to what they want.

In general, Parkmerced is a modified form of community living. In a boarding house the tenants share the dining room. In Parkmerced the tenants run their indoor affairs to suit themselves but they share a common garden space, called a "Patio," which it is not. It is larger than a patio, large enough to be used by many without undue crowding. The laundry, one to each block, is another community unit. By rotating its use there need be no interference. The objectionable feature of not being in the mood to do your laundry when your turn comes is more than offset by the modern equipment, such as washing machines and gas heated dryers, which latter will be installed as soon as priorities are lifted. All apartments face on the so-called "Patio," or community garden space. To increase the feeling of privacy a terrace has been built along the entire garden front of each apartment for the exclusive use of the tenants fronting on it, where they can serve a highball (if they dare) without running the risk of having their generosity interpreted as a general invitation.

UNITY AND VARIETY CHARACTERIZE THESE SEPARATE ENTRANCES

ONE OF A NUMBER OF COMMUNITY GARAGES IS SHOWN AT LOWER RIGHT
They are really parking shelters.

LANDSCAPING IS SIMPLE BUT EFFECTIVE
No attempt has been made to "doll" up.

'ARKMERCED EMBRACES 2500 APARTMENTS, A 16-CLASSROOM SCHOOL, 'LAYGROUNDS AND PLAZAS

THREE INTERIOR VIEWS OF A TYPICAL APARTMENT UNIT AT PARKMERCED

Photos by Moulin Studios, courtesy of Sterling Furniture Company.

The location of the laundries has been skillfully determined, along with the location of store rooms, garages and play grounds for smaller children, so that they may be reached without crossing a street. To do this and still maintain an excellent general plan has been a worthy accomplishment of the architects. That the architects, Leonard Schultze and Associates, have studied long on the plan of Parkmerced is shown by comparing the plan adopted with the plan published in the January 1941 issue of "Architect and Engineer." That plan was more or less an all over pattern of octagons that could be applied to any area of comparatively level land. The present plan is a function of the site, the topography, geographical location and local weather conditions. For example, this location in San Francisco is subject to seasonal winds, which objectionable feature is guarded against by building the apartments around and facing on the court gardens, thus providing a maximum of protection for the tenants.

Further evidence of study is apparent in the adoption of a style of architecture that is NOT pseudo-Mexican. Here in San Francisco builders had begun to call anything Mexican or Spanish that carried a dab of tile or wrought iron. The result was a conglomeration of buildings that looked about as Spanish as a flaxenhaired Hollander under a sombrero picking his teeth with a banderilla. In the selection of names perhaps the architects have gone a little too far in their effort to be American, for here not only do we have none, but we do not think of a "Meadow" (see plot plan) as a place to play games, but rather as a place for sheep and kind-faced cows to graze. Nevertheless, any sincere effort to restore the good old American way of building a house to live in is most acceptable. So, too, is the effort to create an individuality in the design of the units without detaching them and getting the effect of a group of innumerable small dwellings. Parkmerced certainly avoids any appearance of a heterogeneous collection of small houses. It is well knit, well designed and well planned in all its dominant features. It has both unity and variety.

The landscaping has been particularly well done so far as it has gone. No freak or exotic material has been used. Only shrubs and trees that have a good chance to thrive have been set out and they are placed in excellent taste. The use of prostate junipers as a ground cover in certain places is particularly wise and appropriate. Since all grounds maintenance is performed by the Development Company, the temptation to introduce a few exotics must have been strong, but Mr. Church has manfully withstood it to date. Later perhaps a tenant here or there may be allowed to set out a pet bulb or shrub on condition that he remove its remains when it dies.

As with the landscaping, no attempt has been made to "doll" up the interiors with gadgets and wild color schemes. The foremost thought seems to have been to achieve a practical, neat and quiet decorative arrangement that would result in a good livable apartment.

A visit to Parkmerced does not convey the true impression of the magnitude of the project, although it will give a fair picture of the charm of the architecture and the street plan. The obtuse angles at the majority of the street intersections and the setback of curbs to permit visitor parking, adds a charm to the street vista that will be greatly enhanced when the streets are completed to their full length. But no matter how well the work that has been done may look now, the entire project will be vastly more impressive.

The entire project embraces a total of 10,836 rooms, or approximately 2,500 apartments. Of these, 300 apartments have been completed and rented, 300 all but completed and 1,000 are under active construction. Add to this program the playgrounds, the sixteen-classroom school, parks, plazas and street improvements now under way, and it is obvious how incomplete is the picture now.

The apartments are $3\frac{1}{2}$, $4\frac{1}{2}$, 5 and 6-room units and all except the $3\frac{1}{2}$-room units are duplexes with the bed rooms on the second floor. All apartments have hardwood floors, tiled bathrooms and individual gas hot air heaters. All pitched roofs are tile. The rents at present range from $52.00 for a $3\frac{1}{2}$-room unit to $84.50 for a 6-room apartment, includ-

ing hot and cold water, grounds upkeep and garbage disposal, which latter will be greatly improved as soon as proper equipment is released.

When it is realized that this project was started in peace time and is being carried out during war with all the consequent necessary changes in policy and the difficulties in securing material, any criticism of the results to date would seem uncalled for. We know that it was originally planned to construct all buildings of reinforced concrete, but these materials were soon scratched from the list of building materials available for private enterprise. With these conditions in mind, I hesitate to offer any criticism and do so only in the hope that it may be considered constructive. Also, it should be borne in mind that most objectionable details will be eliminated as soon as materials needed are released.

At present the garages are really parking shelters open to the weather. Having lived in San Francisco for many years, I am wondering if residents in Parkmerced sooner or later will not insist on some protection for their cars from fog and wind-swept rains that will drive in under the shelter roof. Also, could not the main entrance to these garages have been masked here and there? Thomas D. Church has solved worse problems for us in the past.

To some, the set-backs of the units along the block front has not entirely accomplished the desired effect of giving individuality to the dwelling unit, so much as giving the street a feeling of restlessness. Perhaps the set-backs should have been fewer or more definite or both.

There is the possibility that some may experience a sort of goldfish feeling with all their windows on the ground floor opening on a court occupied by their neighbors. Whether and how more privacy could be accomplished is their problem. If the flat roofs can be devoted to sun bathing it will develop as time goes on. If some people do not want their children to play with those of their neighbors they are coming to the wrong place to rent. They should try to find a detached house. Yes, try to find one. The Parkmerced management will also find some who do not like the weather and the seasons.

In resume', it is impossible to create complete isolation in a community project. You cannot have your cake and eat it, too. The most that can be done is to develop all the advantages possible that are to be found in detached shelter without losing the major advantages of community dwelling and economy. As always, it is another compromise. The architects and engineers of Parkmerced have gone farther in accomplishing the desired results than has any other group in this country. They could not, nor could anyone, provide all the seclusion of a private estate and maintain a community plan. They had to omit provision for nudists to pursue their pastimes and habits. They have, however, accomplished more than anyone thought they would, or could.

J. FRASER RAY

PLASTICS FOR POST-WAR

By J. FRASER RAY*

Second only in importance to the actual winning of the war, is industrial post-war planning.

Since Pearl Harbor, we have seen revolutionary changes in materials and production techniques, which will have a marked influence on our post-war products.

Some of the new factors which the product planning engineer must check before deciding on post-war materials and production methods are: the wide range of new light metal alloys; the greatly expanded possibilities of papers; entirely new horizons for lumber products; petroleum as a new source of supply for many industrial requirements; utilization of electronic developments as an aid to production methods, and the apparently limitless application for plastics.

If checking his requirements against the latest developments in those fields does not provide a sufficient headache, the factor of war secrecy can be tossed in to make the whole thing just a little more difficult.

Obviously, if reconversion is to proceed rapidly, smoothly and intelligently, post-war planning should be under way now. Plastics have been referred to as the "glamor girl" of modern industry, and all too frequently, the mere mention of the name has evoked in the minds of management a vision of materials "strong as steel"; "light as a feather"; "fireproof" and completely immune to acids, alkalis, sun, wind and weather alike.

If a combination of all of the above virtues could be found in any one material, it would

* Industrial plastics consultant, associated with the Machinery Sales Co., San Francisco.

most certainly constitute an El Dorado for the sales force and the manufacturer.

Because of this type of publicity, plastics manufacturers are regarding the future with a wary eye, and a planned educational program designed to better acquaint industry with the proper application of those materials.

The need for an educational advertising program can be understood when it is realized that there are some fourteen different types of plastics available to industrial users. No one of those materials embody all the "virtues" previously listed, but each possess one, or several of those desirable qualities.

Buyers and users of plastics must be familiar with the characteristics and properties of those materials, if full advantage is to be gained by their use.

Resistance to heat, acids, alkalis and alcohol, flexibility at sub-zero temperatures, high electrical resistance, insulation values, freedom from corrosion, protective surface coatings to meet almost any requirement, ease of fabrication, fast production and high strength-weight ratio, are some of the features plastics can offer you. In the limited scope of this article some of the characteristics and applications for leading plastics will be outlined.

At the outset it might be well to counsel engineers and architects against too rigid acceptance of phyisical properties, as outlined by manufacturers. Many factors which do not enter the field of metals must be checked before figues are accepted. Degree of polymerization, amount and type of plasticizer, temperature and humidity at time of test, tendency to cold flow, etc.—items which may not be vital for general manufacturing applications, but which might have real importance in the selection of plastics for engineering or structural applications.

In cases where close tolerances or critical operating conditions must be met it is usually sound policy to contact an experienced plastics molder or fabricator or the raw material manufacturer before a decision is made.

Extensive chemical research within the industry is responsible for almost constant improvement of the materials, so that property sheets are often obsolete by the time they are distributed.

In the past four years, plastics have definitely graduated from what might be termed the "gadget" phase, into important engineering materials. At the same time, the application of plastics in various forms has created wide new fields for many old industries.

New applications for lumber was mentioned as an item to be checked for post-war by product planning engineers.

One might assume that the limitations of lumber had been reached, and recognized many years ago. Today, however, we find the lumber industry looking to the post-war period with new confidence — a confidence closely akin to belligerent enthusiasm.

PLASTICS AND THE LUMBER INDUSTRY

This new "go get 'em" spirit of the lumber industry is a direct result of its alliance with plastics. Insoluble and infusible synthetic resin glues which withstand three hour boiling tests, permit the use of plywood in aircraft construction, shipbuilding and structural members, replacing steel in many new buildings.

According to an unbiased report recently published in Great Britain, the Mosquito Bomber, all plywood construction plane being built in Canada, is rated as one of the three leading aircraft in the world. This opinion is fully endorsed by pilots who have flown those planes. Plywood has long been recognized as an excellent structural material with favorable strength weight ratio, but, only since the introduction of plastics bonding agents, permitting successful outdoor application, has the full value of this material been uncovered.

New processes involving impregnation of all kinds of lumber, with synthetic resins assure the builder of dimentionally staple materials, which will not warp, shrink nor crack when exposed to weather. This same impregnation process can be used to convert Pacific Coast pine and fir into materials as hard as oak and ebony.

One of the newest and most promising techniques for applications to plywood involves bonding several sheets of plastic impregnated

paper to the surfaces. This process gives to plastic bonded plywood a reasonable measure of the advantages of impregnation, with little addition in weight. This operation utilizes the new low pressure method of lamination—250 P.S.I. at 310° F., and takes approximately six minutes. Recently placed government orders call for thirty million sq. feet of plywood, surfaced by this method.

Phenol-furfural, phenol-formaldehyde, Melamine-formaldehyde, and urea-formaldehyde are the principal plastics used in producing the new lumber products. Those resins are the leading representatives of that division of plastics known as thermo-setting.

Plastics in this category are so named because with the applications of heat they undergo a chemical change, known as polymerization or cure. This reaction yields products which are substantially insoluble and infusible, and are dimensionally stable under a wide range of operating conditions.

They are obtainable in a variety of different forms to meet industrial requirements. Molding compounds, designed to cure under heat and pressure, usually in steel dies at 285 to 380° F and pressure ranging from 2000 to 3000 P.S.I. Liquid resins for casting, resins in solution for impregnating textiles, paper, etc., oil soluble resins for the paint industry and an extensive range of cements and adhesives. In each of those fields, the materials are supplied in dozens of different formulations to meet specific requirements.

It is anticipated that thermo setting resins used in conjunction with the new light metal alloys, plywood, textiles, paper and synthetic rubber, will provide many new structural materials for the home of tomorrow.

LIMITED USE OF PLASTICS URGED

It might be well to state at this point that the plastic industry does not advocate the wholesale substitution of plastics for metals in structural application, but rather, that intelligent use be made of the advantages which can be obtained by combining both. Better insulation; plastics are poor conductors of heat, and are always warm to the touch; decorative surfacing, which is practically indestructible; freedom from corrosion and lighter weight structures, are some of the advantages which plastics will bring to this field.

Under certain conditions, plastics have proved themselves superior to metals. Bearings which can be lubricated with water have decided advantages in the steel and paper industries. As a result, roll neck plastic bearings up to 27″ diameter, are practically standard in those industries. Gears represent another important application where plastics may be used to advantage.

Again, warning is given against generalization, and sound engineering practice with a full knowledge of the materials used, should be the deciding factor.

War shortages has led to the development of substitute materials for many applications. An outstanding job has been done in this respect by the paper industry. In the packaging and container field alone, this industry has made a vital contribution to the war effort. Again, as in the lumber industry, plastics have teamed up with paper to provide new products, which are confidently expected to hold many war time gains against the traditional materials in post-war campetition. Packaging food for overseas shipment, under combat conditions, demands containers able to "take it." Desert heat, jungle humidity, salt water, sub zero temperatures, plus impact strength to resist rough handling under all those conditions, has been provided by the plastic-paper alliance.

Plastic impregnated papers have also made important contributions in structural materials for aircraft, housing, shipbuilding and many other fields.

Another interesting development for structural materials involves utilization of certain vegetable fibres, such as, sisal grass. Short lengths of sisal, unsuited for cordage manufacture, are felted into sheet form, impregnated with phenolic resins, and pressed to shape under heat and pressure. Much of this material has been used in the production of jettison gasoline tanks for aircraft, engine covers, scabbards, helmets, etc.

Thermo plastic materials involve a wide range of plastic compounds affording an equal-

ly wide diversification of chemical and physical properties.

Unlike the thermo setting group, thermo plastics can be softened and reshaped almost indefinitely by the application of heat and pressure, without appreciable loss of their chemical or physical characteristics.

Included in this category are such well known plastics as cellulose nitrate, cellulose acetate, ethyl cellulose, polymethyl methacrylate, polystyrene, and the viny-chloride-acetate group.

By high temperature, and catalytic cracking processes, much of the basic raw materials for this category can be obtained from petroleum. This new source of supply presents intriguing possibilities for post-war industrial development on the Pacific Coast.

Polymethyl methacrylate plastics, probably best known by the trade names of Plexiglas and Lucite, have done an outstanding war job in the aviation field.

Half the weight of glass, crystal clear, shatterproof and easily fabricated, this material has been universally accepted for bomber noses, gun turrets, cockpit covers, etc. The new "translucent teeth" of modern dentistry indicates another application for acryline plastics, where dental plates, teeth, bridges and inlays are all made from this material. Display fixtures, furniture, artificial eyes, transparent valve housings and other machinery parts, roller bearings, outdoor signs, windows for P.T. boats and barrels for marine engine water filters, indicate the wide industrial uses of this thermo plastic. Production is now forty times greater than in 1939. Polymethyl acrylate, a soft formulation, finds extensive use as an adhesive, and protective coating for glass, leather, paper and textiles.

POLYSTYRENE AS AN INDUSTRIAL PLASTIC

Polystyrene has played a dramatic role in the plastics parade since Pearl Harbor. Styrene, the unpolymerized monomer is combined with butadiene to produce Buna-S, which has been the backbone of our synthetic rubber program.

By polymerization, styrene become polystyrene, a thermo plastic, and it is confidently predicted, it will be a dynamic factor in the post-war price structure of plastics.

Quite apart from its importance in synthetic rubber, polystyrene has many outstanding properties as an industrial plastic.

Lightest of all plastics, S.P.G. 1.06, it has excellent dielectric properties, no moisture absorption, is practically immune to acids and alkalis, coupled with its exceptional dimensional stability, Polystyrene is a material to check for your post-war applications. Polyvinyl chloride, polyvinyl acetate, and co-polymers involving modifications of the monomers of those two, produce a range of important plastics generally known as the vinyl group. Those materials are based on acetylene, which may be obtained from coke and lime, or by cracking from petroleum. They can be "tailored" to give compounds, which range from hard rigid products to soft, flexible rubber-like materials.

Vinyl plastics have provided the answer to many problems occasioned by war shortages of traditional materials. Highly resistant to gasoline, oil, grease and sunlight, they have proved their superiority over natural rubber for applications where resistance to those hydrocarbons are important factors.

Vinyl chloride electric cable coatings are standard specification for both army and navy requirements. Transcription record blanks, "keglined" beer can coatings, aircraft templates, binocular body coverings which resist fungus growth, air corps navigating and calculating instruments, surface coatings where chemical resistance is a factor, waterproof cloth coatings for army raincoats, sheets, shower curtains, paulins, soles for army service shoes, etc., are some of the important war jobs of the Vinyl group. In spite of the tremendous increase in production there is still a shortage of these materials to meet the demands of the armed forces. If your post-war plans contemplate the use of sheet materials which must be dimensionally stable, highly resistant to chemicals, and abrasion, with color as an important feature—by all means investigate the Vinyl plastics.

Ethyl cullulose is immune to alkalis in any concentration and highly resistant to acids. It retains its flexibility at sub zero temperature, is compatable with a wide range of other plastics, and can be incorporated with them to provide those qualities in greater measure. It

(Turn to Page 30)

DEFINITELY THE HUB OF THINGS IS A FIVE-FOOT FIREPLACE FLANKED BY BRICK SEATS

SOME W. R. YELLAND FIREPLACES

By FRED W. JONES

"Ancient the adage,
Listen and hear it,
Food feeds the body,
Fire the spirit."

Since the first spark struck by man, fire within its confines has been loved by mankind. Its magic has been great; it has furnished spiritual and physical blessings. Its glow has turned thoughts into deeds, soothed distress, made feeling flow. Fire crackling on the hearth has drawn together and welded circles of lasting friendships.

It is no wonder that we seek to weave the brick and stone that hold the fire into the fabric of our walls, carefully making them a part of other things we enjoy, our window, our shelf of books, our bench or lounging place, our area of space for leisure.

Mr. Yelland throughout his years of practice has had a special feeling for his fireplaces, building them wherever they would find a suitable resting place. One of his houses is apt to have two or three fireplaces, and sometimes six. The houses have not been built, exactly, around the fireplaces, but fireplaces have invariably been the hub of his effort.

Once the outside threshold is crossed you may be sure a fireplace is not far away, terminating a vista that is sure to beckon you into the center of things.

The fireplace has never been an orphan thing introduced into these buildings. No common fireplace has been created that would fit all plans. Just as the plan is oriented to catch the sun and view, so has the fireplace design been changed to be a part of the varying plans. In observing scores of fireplaces created by the architect no duplicates seem to have been possible.

Fireplaces, whether of stone or marble or many materials, should be built, not pre-cast. They should blend and flow into the structure of the building where they are to be found; at all times they should seem plastic. In the illustrations where marble and mirror and wood have been used, there has been a sympathetic

Editor's Note: For want of space, more of Architect Yelland's fireplaces intended to accompany this article, are held over until October.

ANCHORED TO THE OAKS A FIREPLACE TERRACE FORMS AN EXTERNAL LIVING ROOM

DISCRIMINATION IN SELECTION OF BRICK BRINGS WARMTH OF COLOR
THAT WILL HARMONIZE WITH ANY FABRIC

uniting of materials to make the tie with walls and building pleasant.

Brick has been the special delight and means to the end. Brick to this architect carries a sense not only of lasting quality but of something exceedingly flexible. It can be sorted and adjusted for color and easily moulded into that shape of fireplace desired and allowed to extend and embrace many other room features as shown in the illustrations.

The soft colors of common brick are pleasant with fabrics of many shades. With discrimination an interior wall of common brick can be laid, full of value, always fresh, alive and with character.

From the photographs one can imagine the pleasure that fireplaces may bring into the homes or buildings where they are situated.

Surely, the fireplace has great meaning. We do not need to challenge its right to a place in dwellings of whatever patterns are present or yet to come. As we embrace the modern house for its virtues we insist that in its structure we carry on with the fireplace that, sympathetically designed, guards against any form of sterility or bleakness.

"Hearth and cupped flame
Show man the same,
Cave-dweller, modern,
Follow the pattern,
Shelter and fire
All man's desire."

VIEW OF FIREPLACE FROM ENTRANCE REVEALS UNITY OF THOUGHT

A HIGH HEARTH PROVIDES A SEAT FOR READING

A LONG MANTEL AND SHELVES OF BOOKS LACE BRICK AND WALL TOGETHER

PLASTICS FOR POST WAR

(Concluded from Page 26)

can now be polymerized to provide rigid molded parts, and also forms the basis of the new strip coat packaging compounds, which permit overseas shipment of highly machined replacement parts without damage by corrosin. Cellulose nitrate, better known as Celluloid, was the first commercial plastic. Introduced in 1869, this excellent material dominated the thermo plastic field, until the middle 1920s. It is still one of the top flight sellers, and has undergone many improvements since the old Celluloid collar days—now widely used for tool handles, and decorative sheet stock.

Cellulose acetate ranks as the biggest selling molding material in the thermo plastic field. Transparency, high impact strength, beautiful color combinations and ease of fabrication are some of the characteristics responsible for its popularity.

Practically all plastics are on high priority, with little available for civilian use at present.

War conditions have been responsible for developing an open minded attitude on the part of manufacturers towards new material. Shortage of traditional materials has necessitated substitution in many industries. Plastics have proved themselves to be most versatile, functioning in a wide range of applications from corrosion resistant coatings, and nylon hose, to contact lenses, and stern tube bearings for battle wagons. Obviously, no one plastic can provide the characteristics demanded by such a varied range of applications. To the architect, engineer, and industrial designer, familiar with this new field, plastics offer almost unlimited opportunity in decorative and industrial applications.

Americans **expect** new post-war products, involving new styling and new materials. Products which will typify the tremendous advance in scientific research made since our entry into the war.

Export markets will still be open to the manufacturer who decides to offer a "dolled up" edition of his prewar product, but the richest market in the world, The United States, will be sold by those manufacturers flexible minded enough to discard the chains of tradition. Plastics are not a "cure all", but their proven value in widely diversified fields, should justify investigation of their possibilities, by all forward looking engineers and designers.

PRODUCERS' COUNCIL PAGE

Northern California Chapter
The National Organization of Manufacturers of Quality Building Materials and Equipment
Affiliated with the AMERICAN INSTITUTE OF ARCHITECTS

NORMAN BROWN

Norman Brown is one of the newer members, doing a job on our membership and attendance committee this year.

He was born in 1899 in Gateshead - on - Tyne, England.

He served his apprenticeship at Palmer Shipbuilding and Engineering Co. as a marine engineer, and studied marine engineering at the Marine College, South Shields, England. Next followed service with the British Army during World War I, in the Royal Engineers, Gas Section . . . and now he is a salesman, but I'm getting ahead of my story. Norman then served as a marine engineer with the Eagle Oil Transport Company, calling at Mexican and South American ports.

Norm arrived in San Francisco in 1932, and entered the steam specialty field, specializing in automatic control equipment. In 1935 he became a manufacturers representative for Bell & Gossitt Co. of Chicago, hot water heating specialists, and in addition, temperature control equipment.

He is an associate member of the American Society of Heating and Ventilating Engineers. His hobbies are golf and swimming and his home is in San Francisco.

After a Trial Run the "Base Bid—Alternate Bid" type of specification, better known by the "Or Equal" clause it seeks to replace, has been hauled back into the shop for adjustments and a little more tuning up.

We Hear that Chuck Kraft has been appointed to the Council's Technical Committee of which Tyler S. Rogers of Owens-Corning Fibreglas Corp. is Chairman. Chuck is particularly interested in the activities of the subcommittee on Modular Products, chairmanned by Frederick Heath, Jr., also of the Owens-Corning organization.

Church reminds us that Modular Planning and Dimensional Coordination of building products and equipment offers us the one solid hope of meeting the generally anticipated 30% higher building costs after the war.

Designing Projects on the modular basis, in accordance with the principles of dimensional coordination will save the architect time in layout and detailing and in his supervision of the construction. In addition, the system of coordinated dimensions means better quality construction because less is left to chance when the building products are fitted together on the job.

Perhaps the greatest saving will result from the fact that, when materials and equipment are made with adequate regard for the dimensions of other products with which they must be combined in various types of structures, there will be less waste of materials and less time lost by workmen in cutting and fitting.

Additional economies will result in the manufacture of building products, since producers of materials and equipment will have fewer sizes to manufacture and keep in stock, and the smaller number of sizes to be made will permit a greater degree of mass production, which brings a still further reduction in cost.

Libbey-Owens-Ford lifted the curtaiin on informational Meetings, the first of its type we have seen in these parts since the War started. The enjoyable, interesting and informative meeting sets the pace for accelerated activities along these lines from here on out.

Rex Nicholson courageously faced a problem at our August meeting. It isn't going to be a better world just because the war is over. It's going to be worse . . . unless we do something about it. Post-war planning should now be job planning at the drafting board stage. Have you done something lately to help?

USE QUALITY PRODUCTS — CONSULT AN ARCHITECT

BOOK REVIEWS

Built in U. S. A.: 1932-1944. Edited by Elizabeth Mock; foreword by Philip L. Goodwin. Published by the Museum of Modern Art, 11 West 53 Street, New York. 128 pages, 206 plates, cloth; price $3.00.

Let us call the emergence of the styles, or modes, of domestic architecture of the last decade as a phenomenon nurtured by the Architectural Forum, Architectural Record and the Museum of Modern Art, educationally presented to the public and accepted.

This book should be bought and added to the other interesting publications, brought out by the Museum to round out one's library on timely questions of architecture and art. Illustrated in this book of 128 pages with 206 plates, are forty-seven buildings of the time, selected for their special distinction by the Museum and its Architecture Committee. As the authors state, "here, vividly pictured, is the setting in which some Americans **now** live, in which Americans **could** live."

Philip Goodwin explains in his introduction that the list by no means covers all the excellent modern buildings of the period (1932-44) nor, perhaps unjustly, does it represent many architects who have turned out consistently good work, but have not yet happened to produce any one building which the committee could agree upon as a distinguished architectural achievement—the great majority was selected on the basis of total design. This should soothe the feelings of those who were not represented or whose entries were "included out", as in my case, after careful consideration and resulting regrets.

The good and familiar names are there, but the faces seem a little blurred; perhaps by having been represented by this particular work and not by that one belonging to the name. I suppose it does not matter. Mr. Goodwin's explanation of the difficulties of selection should suffice. However, the curse invited for choosing 50 examples for a component section of a large exhibition of "Art in Progress" is eternal upon those who have to tackle the job of continuing discovery and proclamation of excellence.

If I am not mistaken, the original plan was to end the selection of work with the entries completed in 1942. Thus, it would have been a summation of a stagnant decade of building activity marked, except for a few isolated cases, only by the development of middle class domestic building. The years of '32 and '33 are virtually vacuous and are formative to 1935 with 1939 being the peak of activity during which emerged many names of designers as soon as the argonauts discovered the basic premises of a hitherto non-existent small house. In this book almost a third of selections of work were finished in 1939 with 1942 leading a second.

Elizabeth Mock's discussion is worth reading. Among other items it brings up age-old questions which she answers in a contemporary manner. The last item on Monumentality, a pesky classroom issue, brought to my mind a passage from Horace's last ode, which should add to Miss Mock's well treated contribution on this point.

In looking over the selected work again the book tends to reinforce the feeling that regionalism is not an issue anymore in the sense as it would be desirable for differentiation to fit climatic and material conditions.—Michael Goodman.

POST-WAR STATE BUILDING PROGRAM

The post-war building construction program of the State of California will, in all likelihood, have money in the treasury to pay its costs, before actual construction begins. In adopting Governor Warren's program, the Legislature established a savings account for necessary construction work and as an employment reserve as follows:

Post-war Employment Fund (from 1943 Session, based on tax percentage)	$62,000,000
General Fund Surplus (from 1944 Session)	50,000,000
Total	$112,000,000

Distribution:

State Institutions	$ 40,000,000
State Education (Colleges and Special Schools)	11,000,000
University of California (including contract plans)	25,600,000
State Office Buildings and Capitol	9,000,000
Correctional agencies	9,000,000
Veterans' Home	1,600,000
State Agricultural Society	1,600,000
Repairs to existing structures	4,000,000
Miscellaneous	1,000,000
Contract plans	3,250,000
Reserve	6,050,000

COMPETITION FOR WORKSHOP

Awards totaling $2,500 will be made to contestants in a national competition to discover plans for the most efficient and practical post-war home workshop layout, sponsored by the Delta Manufacturing Co. of Milwaukee, makers of homecraft power tools.

First prize in the contest which closes October 31, will be $1,000 worth of power tools, with a total of 199 other prizes offered. Judges are Harry Walton, home workshop editor of Popular Science; E. R. Haan, technical editor of Popular Mechanics, and William Bachrach, Regional Coordinator of Engineering, Science and Management, War Training.

PLASTICS-PLYWOOD CONFERENCE

Perhaps the two panels of plastic-surfaced plywood displayed in one of the booths at the recent Seattle, Wash., Plastics-Plywood Conference were symbolic of the intent and purpose of the meeting.

For these panels, now in mass-production primarily to meet military needs, are the result of the joining of the two materials to combine the desirable properties of both in one product. And the 400 men who attended the conference, many of them of national prominence in their respective fields, met to discuss the progress and problems of the two industries with particular emphasis on utilization of the products to complement each other.

William T. Cruse (left), Executive Vice President of the Society of the Plastics Industries, Inc., and W. E. Difford, Managing Director of Douglas Fir Plywood Association, chat during the recent Plastics-Plywood Conference at Seattle, Wash.

A dozen addresses were presented dealing expressly with as many different aspects of the manufacture and marketing of plastics and plywood separately and in combination. In addition, the second day of the two-day, all-business meeting was devoted to a score of round-table discussions among the conferees.

Co-sponsors were the Society of the Plastics Industry, Inc., the national organization of plastics molders and manufacturers, and Douglas Fir Plywood Association, the trade organization of Oregon and Washington plywood producers.

The panels which are a combination of the two materials represent the first products that can accurately be described as "plastic plywood" although the term has been used rather loosely in recent months. For they consist of standard exterior (waterproof) fir plywood with phenolic resin surfaces approximately ten and twenty thousands of an inch thick.

Added to the recognized properties of fir plywood are a hard, smooth surface, abrasion resistance and moisture resistance. The two products now are being manufactured in quantity by four plywood factories.

So far, the plastic-plywood is used primarily for the packaging of precision military instruments and for special applications such as table tops that require smooth, wear-resistant surfaces. But plywood and plastic manufacturers alike, having prevously established their separate products in the building field, regard plastic-surfaced plywood as potentially important in the construction of future homes and offices.

ARCHITECT AND ENGINEER

The engineer has become the glamor boy of the war construction era. The architect has become the employee of the engineer or has sought to maintain his identity by adopting the professional designation architect and engineer or the firm name, "Architects and Engineers." The architect weakens his professional position in his contract with the owner by charging an extra fee for engineering service which he should be competent to perform.

If the architect is to regain his professional position as the master builder he will have to meet the competition of the engineer with the engineer's weapons—structural competence. The place to begin is in the schools by insisting on more thorough courses in construction and in the fundamentals of mathematics and mechanics underlying construction. Fifteen years ago 22% of the 6006 architectural students in the colleges were majoring in architectural engineering. In March this year there were 1391 students left, of whom 31% are women, and the student in architectural engineering has all but vanished. This student lack of interest in structural courses is difficult to understand in the light of his intense interest in the modern architecture, of which the very essence is the glorification of construction. With the greatest of ease he has accepted and added a sixth order of architecture to the classical five in history. It is a gas pipe filled with concrete without either base or capital which yesterday was used in basements, and today takes it place, unashamed of its nakedness, in the facades of even monumental buildings.—Charles St. John Chubb, Ohio State University, in "The Ohio Architect."

ARCHITECTS MOVE

William D. Coates has moved from 411 Mason Building, Fresno, to 703-4 Helm Building, in the same city.

F. E. Lloyd has moved from 360 Pine Street, San Francisco, to 210 Post Street.

Donald P. Smith has changed his P. O. address from Route 2, Box 670, Fresno, to 717 Humboldt Street, San Francisco.

Henry C. Smith from 3859 Sacramento Street, San Francisco, to 899 Green Street.

William Arild Johnson has moved from 3225 East 92nd Street, Seattle, to the First National Bank Building, Everett, Washington.

FIRE-SAFE FABRICS IN NEW YORK NIGHT CLUB

Fire-safe Fiberglas decorative fabrics were employed in the redecoration of the Bal Tabarin, New York night club. The ceiling covering above the dance floor is a lustrous white Fiberglas fabric.

In this room of the New York night club the ceiling covering is a brilliant blue, while red, white and blue Fiberglas fabrics were assembled to make up the tricolor awning.

BACK FROM WAR FRONT

Captain Ben O'Connor, architect of Los Angeles, who formerly wrote an interesting editorial column for this magazine, recently came home from eighteen months of service in the South Pacific. Capt. O'Connor is a ground officer in the Marine Air Force, and has been in the Solomons and the New Hebrides. He has been supervising construction of air fiields and buildings, and looking after their maintenance and repair.

PERUVIAN ARCHITECT VISITS CHICAGO

Senor Emilio Harth-Terre, distinguished Peruvian architect, who is visiting some of the leading American library centers as a guest of the Department of State, was in Chicago June 16-18. He was a guest of Daniel Catton Rich, the director of Fine Arts of the Art Institute, and visited the American Library Association Headquarters.

Senor Harth-Terre, Chief of City Planning in the Ministry of Public Works in Lima, is at present engaged with plans for the immediate rebuilding of the National Library of Peru which was devasted by fire in 1943. The new National Library in Lima will cost more than 7,000,000 soles— about $1,000,000. It will cover a ground area of 60,000 square feet, and its three floors will give it a floor space of 150,000 square feet and a capacity exceeding 1,500,000 volumes. An old cloister which was the only part of the former library to escape the flames will be incorporated into the construction of the new edifice. Traditional Peruvian colonial and pre-colonial design has been blended with the modern in the plans for the new library.

Besides his work for the Ministry of Public Works, Senor Harth-Terre is Professor of Fine Arts in the Lima School of Fine Arts and is a founding member of the National Council for the Preservation and Restoration of Historical Monuments. In the latter capacity he supervised the reconstruction of the historic Cathedral of Lima; the tower of the Church of Santo Domingo, felled by an earthquake; the facade of the Church of La Merced and the Convent of St. Augustine, at Sana, all without compensation.

Twenty-five years ago, Senor Harth-Terre was the first student to be graduated from the School of Architecture at Lima, and he spent three years in post-graduate work at Paris.—Harriette L. Greene, A.LA.

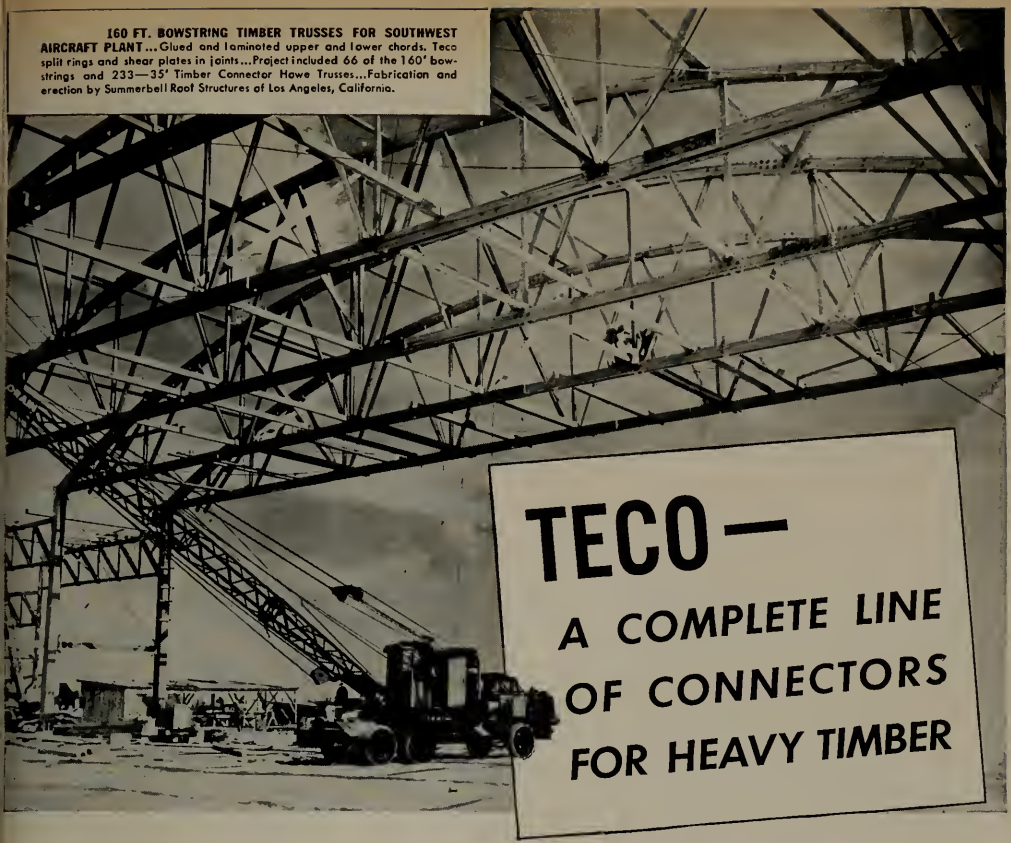
NEW STANLEY HARDWARE CATALOG

This new wartime catalog—an up-to-date Stanley hardware catalog of available builders hardware, is ready for distribution. It's 16 pages are designed for quick reference. Its six sections include butt hinges, cabinet hardware, window hardware, screen and storm sash hardware, bolts-latches-pulls-braces-hasps-staples strap and T.hinges.

Aside from being a compilation of Stanley hardware available at the present time, catalog No. 17 carries such general information as:

Permitted finishes, location of butt hinges, table of butt hinge widths and screw hole locations, factors determining type of butt hinges, screws and bolts, etc.

This new 8½ x 11 sixteen page book will bring architects right up-to-date on Stanley hardware. Request for a copy to The Stanley Works, Advertising Dept., New Britain, Conn., will receive prompt attention.



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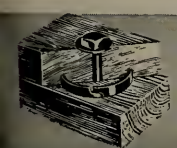

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STEEL LOCKER SIMPLIFIED PRACTICE

The Standing Committee in charge of reviewing and revising Simplified Practice Recommendation R35-28, Steel Lockers (Single, Double, and Multiple Tier), has approved a revision of the recommendation, and the Division of Simplified Practice of the National Bureau of Standards has mailed copies to all interests for consideration and approval.

The original draft of this recommendation, which was promulgated as of April 1, 1925, established a simplified schedule of 17 recommended stock sizes of single and double tier steel lockers out of a total of 65 sizes in production at that time. The first revision in 1928, added one size to each of the schedules for single tier and double tier lockers and four sizes of multiple tier lockers.

It is the Standing Committee's belief that now is the time to perfect plans to resume operations with the greatest possible efficiency. The proposed revision constitutes the Committee's best thought as to desirable practice in the post-war period when the removal of restrictions on the use of materials will make it possible for the industry to resume production of lockers on a normal scale. The Committee recommends the dropping of two sizes of single tier lockers, the addition of two sizes of double tier lockers, a change in the size of one multiple tier locker, the addition of three sizes of multiple tier lockers, and the addition of several paragraphs of general information.

A limited number of mimeographed copies of the proposed revision may be obtained without charge from the Division of Simplified Practice, National Bureau of Standards, Washington, D. C.

BUILDING CODE CHANGES

Only a slight change in some local building codes will help make possible the anticipated housing boom after the war, it was stated in a report by Henry J. Schweim, general manager of the Gypsum Association, Chicago.

Contrary to demands made by some critics, he said, complete revision of these codes, which often requires years, is not necessary.

"An amendment authorizing the building commissioner or a board of standards and appeals to approve the use of tested new materials," said Schweim, "will go a long way toward bringing any code up to date, and avoid blocking necessary building when the War Production Board gives permission for civilian construction."

In 1940, more than 27 per cent of all local building codes had been unchanged for over 15 years, he said. Those years were marked by history's greatest advancements in building materials, yet in many places these improvements could not be used.

"The severe shortage of lumber and other materials will continue for some time after the war. Permission to allow newly developed and proved materials which are plentiful will make possible the employment of thousands of men and early relief for the shortage of decent housing," Schweim declared.

PIERCE FOUNDATION HOUSING RESEARCH

Trustees of the John B. Pierce Foundation have announced an arrangement by which many of the research developments and products of its laboratories will be made generally available to the public through the Stran-Steel Division of Great Lakes Steel Corporation, Detroit, Michigan.

The Pierce Foundation is a privately endowed organization engaged in research, educational, technical and scientific work, and has been a leader in the development of mass-produced, low-cost housing.

The Pierce Foundation has experimented for years with the pre-engineered house and its utilities, especially heating, ventilating and sanitary equipment. Many thousands of Pierce Foundation designed houses have been erected in connection with the war effort.

However, the possibility that the war in Europe may end in 1944, bringing a tremendous demand for shelter in many sections of the United States as well as in bombed-out areas of Europe, has made it important for the Pierce Foundation to have its research developments promptly materialized and made accessible to the public. The agreement with Stan-Steel, a leading fabricator of steel buildings and building products, is expected to provide such an outlet.

YOUTH'S ENTHUSIASM

Carleton Winslow, Jr., Los Angeles, now Sergeant Winslow of the U. S. Engineers, wrote recently: "There is one advantage in belonging to the Engineers. There are so many skilled men that building roads, barracks, pipe lines for running water, etc., can be accomplished easily. We also have a large baseball diamond, an open air theater, a large refrigerator and showers."

"The island is a water colorists' Heaven. The swimming is wonderful and I never tire of walking in the jungle watching the insects and the beautiful flora."

DAVID B. CLARK, ARCHITECT

The death of David Bridgeman Clark, A.I.A., junior member of the firm of Birge and David Clark of Palo Alto, is a loss to the architectural profession. Clark was a brilliant designer and among the most recent buildings to which he contributed his talent was the Permanente Hospital in Oakland, now under construction. Clark was chairman of the Palo Alto Planning Commission, past president of the Palo Alto Rotary Club, director of the Chamber of Commerce and a leader in the Boy Scouts.

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ENTRANCE DETAIL AT PARKMERCED

WOULD CHANGE TO METRIC SYSTEM

In a talk before the San Jose Chamber of Commerce recently, Achitect Ralph Wyckoff proposed that Congress enact a measure that will outlaw the English system of weights and measures in favor of the metric, the new law to become effective after a ten-year period of preparation and adjustment. Wyckoff emphasized the absurdity of using the English system here when the metric system has been adopted by every other country except England. The architect described all the involved ramifications of the English system as "a national headache."

"I believe the average man on the street, if asked, 'What is our standard of measurement?' would say, 'The foot.' The fact is the yard is our standard of length. There is no scientific basis for any of the English standards. I have read the foot was the length of King Solomon's foot, not counting the bunion on the heel.

"The foot is divided into tenths and hundredths by civil engineers and into inches by most other people. The engineer in making a plan of a piece of property will draw it to a scale of 20, 50, or 100 feet to the 'inch.' The architect will draw the same plot plan to a scale of a quarter, an eighth, or a sixteenth to the 'foot.'"

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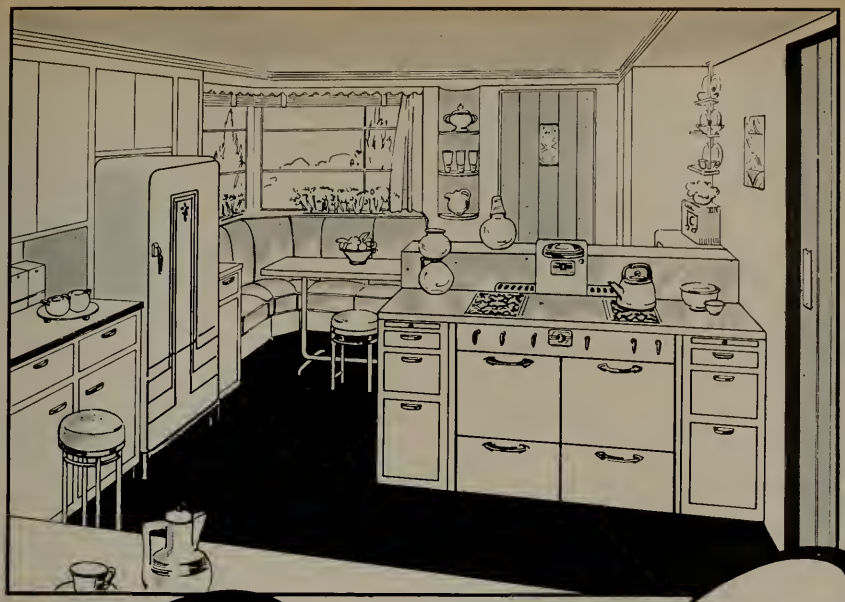

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ARCHITECT AND ENGINEER

Estimator's Guide

Giving Cost of Building Materials, Etc.

AMOUNTS GIVEN ARE FIGURING PRICES AND ARE MADE UP FROM AVERAGE QUOTATIONS FURNISHED BY MATERIAL HOUSES TO SAN FRANCISCO CONTRACTORS. 2½% SALES TAX ON ALL MATERIALS BUT NOT LABOR

All prices and wages quoted are for San Francisco and the Bay District. There may be slight fluctuation of prices in the interior and southern part of the state. Freight cartage, at least, must be added in figuring country work.

BONDS—Performence—50% of contract.

Labor and materials—50% of contract.

BRICKWORK—

Common Brick—Per 1M laid—$50.00 to $60.00 (according to class of work).

Face Brick—Per 1M laid—$120 to $150 (according to class of work.)

Brick Steps—$1.60 per lin. ft.

Brick Veneer on Frame Bldg.—Approx. $1.30 per sq. ft.

Common Brick—$19.00 per M, truckload lots, f.o.b. job.

$19.00 per M, less than truckload, plus cartage.

Face Brick—$40 to $80 per M, truckload lots, delivered.

Cartage—Approx. $4.00 per M.

BUILDING PAPER—

1 ply per 1000 ft. roll	$3.50
2 ply per 1000 ft. roll	5.00
3 ply per 1000 ft. roll	6.25
Brownskin, Standard, 500 ft. roll	5.00
Sisalkraft, 500 ft. roll	5.00
Sash cord com. No. 7	$1.20 per 100 ft.
Sash cord com. No. 8	1.50 per 100 ft.
Sash cord spot No. 7	1.90 per 100 ft.
Sash cord spot No. 8	2.25 per 100 ft.

Sash weights, cast iron, $50.00 ton.
Nails, $3.42 base.
Sash weights, $45.00 per ton.

CONCRETE AGGREGATES—

The following prices net to Contractors unless otherwise shown.

Gravel, all sizes—
$1.95 per ton at Bunker; delivered $2.50

	Bunker	Del'd
Top Sand	$1.90	$2.50
Concrete Mix	1.90	2.45
Crushed Rock, ¼" to ¾"	1.90	2.50
Crushed Rock, ¾" to 1½"	1.90	2.50
Roofing Gravel	2.25	2.80
River Sand	2.00	2.45

Sand—

River Sand	2.00	2.45
Lapis (Nos. 2 & 4)	2.85	3.15
Olympia (Nos. 1 & 2)	2.85	3.10
Del Monte White	84c per sack	

Cement—

Common (all brands, paper sacks), carload lots, $2.42 per bbl. f.o.b. car; delivered $2.72.

Cash discount on carload lots, 10c a bbl., 10th Prox.; less than carload lots $3.20 per bbl. f.o.b. warehouse or delivered.

Cash discount 2% on L.C.L.

Atlas White, Calaveras White, Medusa White — 1 to 100 sacks, $2.50 sack warehouse or del.; $7.65 bbl. carload lots.

Forms, Labors average $200.00 per M.

Average cost of concrete in place, exclusive of forms, 35c per cu. ft.; $10 cu. yd.; with forms, 60c.

4-inch concrete basement floor ..... 30c per sq. ft.

Rat-proofing 7½c

Concrete Steps ..... $1.25 per lin. ft.

DAMPPROOFING and Waterproofing—

Two-coat work, $3.50 per square.

Membrane waterproofing—4 layers of saturated felt, $7.00 per square.

Hot coating work, $2.50 per square.

Medusa Waterproofing, $3.50 per lb. San Francisco Warehouse.

Tricocel waterproofing.
(See representative.)

ELECTRIC WIRING—$12 to $15 per outlet for conduit work (including switches).

Knob and tube average $3.00 per outlet. (Available only for priority work.)

ELEVATORS—

Prices vary according to capacity, speed and type. Consult elevator companies. Average cost of installing a slow speed automatic passenger elevator in small four story apartment building, including entrance doors, about $6500.00.

EXCAVATION—

Sand, 60 cents; clay or shale $1 per yard. Teams, $12.00 per day.

Trucks, $22 to $27.50 per day.

Above figures are an average without water. Steam shovel work in large quantities, less; hard material, such as rock, will run considerably more.

FIRE ESCAPES—

Ten-foot galvanized iron balcony, with stairs, $150 installed on new buildings; $160 on old buildings.

FLOORS—

Composition Floor, such as Magnesite, 33c to 50c per square.

Lineflor—2 gages—$1.25 to $2.75 per sq. yd.

Mastapay—90c to $1.50 per sq. yd.

Battleship Linoleum—available to Army and Navy only—⅛"—$1.75 sq. yd. 3/16"—$2.00 sq. yd.

Terazzo Floors—50c to 70c per square.

Terazzo Steps—$1.75 per lin. ft.

Mastic Wear Coat—according to type—20c to 35c.

Hardwood Flooring—
Standard Mill grades not available.

Victory Oak—T & G	
25/32 x 2¼"	$143.25 per M. plus Cartage
½ x 2"	122.00 per M. plus Cartage
½ x 1½"	113.50 per M. plus Cartage
Prefinished Standard & Better Oak Flooring	
25/32 x 3¼"	$180.00 per M. plus Cartage
½ x 2½"	160.50 per M. plus Cartage
Maple Flooring	
25/32" T & G Clear	$160.50 per M. plus Ctg.
2nd	153.50 per M. plus Ctg.
3rd	131.25 per M. plus Ctg.

Floor Layers' Wage, $1.50 per hr.

GLASS—

Single Strength Window Glass	20c per □ ft
Double Strength Window Glass	30c per □ ft.
Plate Glass, under 75 sq. ft.	$1.00 per □ ft.
Polished Wire Plate Glass	1.40 per □ ft.
Rgh. Wire Glass	.34 per □ ft.
Obscure Glass	.27 per □ ft.

Glazing of above is additional.
Glass Blocks ..... $2.50 per □ ft. set in place

HEATING—

Average, $1.90 per sq. ft. of radiation, according to conditions.

Warm air (gravity) average $48 per register.

Forced air, average $68 per register.

IRON—Cost of ornamental iron, cast iron, etc., depends on designs.

LUMBER — All lumber at O.P.A. ceiling prices—

No. 1 Common	$49.00 per M
No. 2 Common	47.75 per M
Select O. P. Common	52.75 per M

Flooring—

	Delvd.
V.G.-D.F. B & Btr. 1 x 4 T & G Flooring	$80.00
C 1 x 4 T & G Flooring	75.00
D 1 x 4 T & G Flooring	65.00
D.F.-S.G. B & Btr. 1 x 4 T & G Flooring	61.00
C 1 x 4 T & G Flooring	59.00
D 1 x 4 T & G Flooring	54.00
Rwd. Plastic—"A" grade, medium dry	82.00
"B" grade, medium dry	78.50

Plywood—

	Under $200	Over $200
"Plyscord"—3/8"	$49.50	$47.55
"Plywall"—1/4"	45.15	43.30
3 ply—2/s—1/4"	48.55	46.60
"Plyform"—5/8"—		
Unoiled	126.50	121.45
Oiled	127.90	122.75

Above prices delivered if quantity is sufficient to warrant delivery.

Shingles (Rwd. not available)—

Red Cedar No. 1—$6.75 per square; No. 2, $5.75; No. 3, $4.45.
Average cost to lay shingles, $3.00 per square.
Cedar Shakes—Tapered: 1/2" to 3/4" x 25"—$8.95 per square.
Resawn: 3/4" to 1 1/4" x 25"—$10.65 per square.
Resawn: 3/4" to 1 1/4" x 25"—$10.65 per square.
Average cost to lay shakes, $4.00 per square.

MILLWORK—Standard.

O. P. $100 per 1000. R. W. rustic $100.00 per 1000 (delivered).
Double hung box window frames, average with trim $6.50 and up, each.
Complete door unit, $10.00.
Screen doors, $3.50 each.
Patent screen windows, 25c a sq. ft.
Cases for kitchen pantries seven ft. high, per lineal ft., $9.00 each.
Dining room cases, $9.00 per lineal foot. Rough and finish about 80c per sq. ft.
Labor—Rough carpentry, warehouse heavy framing (average), $40.00 per M.
For smaller work average, $40.00 to $55.00 per 1000.

MARBLE—See Dealers)

PAINTING—

Two-coat work	per yard 50c
Three-coat work	per yard 70c
Cold water painting	per yard 10c
Whitewashing	per yard 8c

PAINTS—

Two-coat work ..... 50c per sq. yd.
Three-coat work ..... 70c per sq. yd.
Cold water painting ..... per yard 10c
Whitewashing ..... 8c per sq. yd.
Turpentine $1.03 per gal. in drum lots. $1.08 per gal. in 5-gal. containers.
Raw Linseed Oil—not available.
Boiled Linseed Oil—$1.38 per gal. in drums. Available only to work with high priority—$1.48 per gal. in 5-gal. containers.
Use replacement oil—$1.86 per gal. in 1-gal. containers.
Replacement Oil—$1.20 per gal. in drums. $1.30 per gal. in 5-gal. containers.
A deposit of $6.00 required on all drums.

PATENT CHIMNEYS—

6-inch	$1.20 lineal foot
8-inch	1.40 lineal foot
10-inch	2.15 lineal foot
12-inch	2.75 lineal foot

PLASTER—

Neat wall, per ton delivered in S. F. in paper bags, $17.60.

PLASTERING (Interior)—

	Yard
3 Coats, metal lath and plaster	1.50
Keene cement on metal lath	1.80
Ceilings with 3/4 hot roll channels metal lath (lathed only)	1.20
Ceilings with 3/4 hot roll channels metal lath plastered	2.20
Single partition 3/4 channel lath 1 side (lath only	1.20
Single partition 3/4 channel lath 2 inches thick plastered	3.20
4-inch double partition 3/4 channel lath 2 sides (lath only)	2.20
4-inch double partition 3/4 channel lath 2 sides plastered	3.85
Thermax single partition; 1" channels; 2 1/4" overall partition width. Plastered both sides	3.30
Thermax double partition; 1" channels; 4 3/4" overall partition width. Plastered both sides	4.40
3 coats over 1" Thermax nailed to one side wood studs or joists	1.65
3 coats over 1" Thermax suspended to one side wood studs with spring sound isolation clip	1.90

Note—Channel lath controlled by limitation orders.

PLASTERING (Exterior)—

	Yard
2 coats cement finish, brick or concrete wall	$1.00
3 coats cement finish, No. 18 gauge wire mesh	2.00

Lime—$3.00 per bbl. at yard.
Processed Lime—$3.10 bbl. at yard.
Rock or Grip Lath—3/8"—20c per sq. yd.
5/8"—19c per sq. yd.

Composition Stucco—$1.80 to $2.00 sq. yard (applied).

PLUMBING—

From $100.00 per fixture up, according to grade, quantity and runs.

ROOFING—

"Standard" tar and gravel, 4 ply—$8.00 per sq. for 30 sqs. or over.
Less than 30 sqs. $9.50 per sq.
Tile, $30.00 to $40.00 per square.
Redwood Shingles, $7.50 per square in place.
5/2 #1-16" Cedar Shingles, 4 1/2" Exposure ..... $8.00 square
5/8 x 16"—#1 Cedar Shingles, 5" Exposure ..... $9.00 square
4/2 #1-24" Royal Shingles, 7 1/2" Exposure ..... $9.50 square
Re-coat with Gravel $4.00 per sq.
Asbestos Shingles, $23 to $28 per sq. laid.
1/2 x 25" Resawn Cedar Shakes, 10" Exposure $10.50
3/4 x 25" Resawn Cedar Shakes, 10" Exposure 11.50
1 x 25" Resawn Cedar Shakes, 10" Exposure 12.50
Above prices are for shakes in place.

SHEET METAL—

Windows—Metal, $1.75 a sq. ft.
Fire doors (average), including hardware $2.00 per sq. ft.

SKYLIGHTS—(not glazed)

Copper, 90c sq. ft. (flat).
Galvanized iron, 40c sq. ft. (flat).
Vented hip skylights 60c sq. ft.

STEEL—STRUCTURAL (None available except for defense work).

$150 ton (erected), this quotation is an average for comparatively small quantities. Light truss work higher. Plain beams and column work in large quantities $140 per ton.

STEEL REINFORCING (None available except for war work).

$150 to $200 ton, set.

STONE—

Granite, average, $6.50 cu. foot in place.
Sandstone, average Blue, $4.00. Boise, $3.00 sq. ft. in place.
Indiana Limestone, $2.80 per sq. ft. in place.

STORE FRONTS (None available).

TILE—

Ceramic Tile Floors—70c to $1.00 per sq. ft.
Cove Base—$1.10 per lin. ft.
Glazed Tile Wainscot—$1.25 per sq. ft.
Asphalt Tile Floor 1/8" & 3/32"—$ .18 to $ .35 per sq. ft. Light shades slightly higher.
Cork Tile—$ .40 to $ .75 per so. ft.
Mosaic Floors—see dealers.
Lino-Tile, $ .35 to $ .75 per sq. ft.

Wall Tile—

Glazed Terra Cotta Wall Units (single faced) laid in place—approximate prices:

2 x 6 x 12	$1.10 sq. ft.
4 x 6 x 12	1.25 sq. ft.
2 x 8 x 16	1.20 sq. ft.
4 x 8 x 16	1.40 sq. ft.

VENETIAN BLINDS—

40c per square foot and up. Installation extra.

WINDOWS—STEEL—

30c per square foot, $5 for ventilators.

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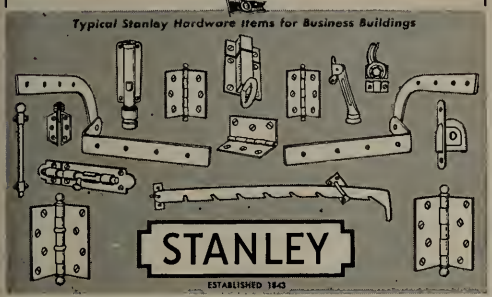

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PASSING OF JOHN HOWE

John M. Howe, editor of "California Highways and Public Works," official publication of the State Department of Public Works, died in a Sacramento hospital August 29, ending a long newspaper career which began in New York city as city editor of the Journal. Before entering the employ of the State as secretary of the old Highway Commission Mr. Howe was automobile editor of the Los Angeles Examiner.

1944 BUILDING TRADES WAGE SCALES (JOB SITE) NORTHERN CALIFORNIA

Six- and seven-hour day eliminated on all Government Work. A. F. L. - O. P. M. Agreement calls for eight-hour day.

NOTE: Predeterminations by the Department of Labor, as of July 1 (the wage-freezing date) have not yet been made in all of the counties listed. The wage scales shown are those being paid and in effect mostly by agreement between employers and their union.

CRAFT	San Francisco	Alameda and Contra Costa	Fresno	Marin	Sacramento	San Jose	San Mateo	Vallejo	Stockton
ASBESTOS WORKERS	1.50	1.50	1.25	1.50	1.50	1.25	1.50	1.50	1.25
BRICKLAYERS	1.87½	1.87½	1.75	1.87½	1.75	2.00	1.79-1/6	1.75	1.58
BRICKLAYERS, HODCARRIERS	1.40	1.40	1.05	1.40	1.05	1.50	1.35	1.50	1.14
CARPENTERS	1.50	1.50	1.25	1.43¾	1.37½	1.37½	1.43¾	1.50	1.37½
CEMENT FINISHERS	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
ELECTRICIANS	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70
ELEVATOR CONSTRUCTORS	1.75½	1.75½	1.75½	1.75½	1.75½	1.75½	1.75½	1.75½	1.75½
ENGINEERS: MATERIAL HOIST	1.50	1.50	1.25	1.50	1.37½	1.62½	1.50	1.37½	1.25
PILE DRIVER	1.75	1.75	1.60	1.75	1.75	1.75	1.75	1.75	
STRUCTURAL STEEL	1.75	1.75	1.60	1.75	1.75	1.75	1.75	1.75	1.60
GLASS WORKERS	1.40	1.40	1.12½	1.40	1.12½	1.21	1.40	1.40	
IRONWORKERS: ORNAMENTAL	1.60	1.50	1.60	1.50	1.60	1.31¼	1.50	1.50	
REINF. RODMEN	1.50	1.50	1.60	1.50	1.50	1.60	1.50	1.50	1.25
STRUCTURAL	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.37½
LABORERS: BUILDING	1.00	1.00	.90	.87½	.95	.90	.93¾	.90	.90
CONCRETE	1.00	1.00	.90	.87½	.95	.90	.93¾	.95	1.00
LATHERS	1.75	1.75	1.50	1.75	1.60	1.75	1.75	1.75	1.75
MARBLE SETTERS	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
MOSAIC & TERRAZZO	1.25	1.25	1.12½	1.25	1.15-5/8	1.12½			
PAINTERS	1.50	1.50	1.28-4/7	1.50	1.43	1.50	1.42-6/7	1.64-2/7	1.37½
PILEDRIVERS	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54
PLASTERERS	1.75	1.83½	1.75	1.75	1.75	2.00	2.00	1.75	1.83-1/3
PLASTERERS' HODCARRIERS	1.50	1.60	1.40	1.50	1.18¾	1.50	1.75	1.50	1.50
PLUMBERS	1.70	1.70	1.53-1/8	1.70	1.68¾	1.62½	1.70	1.70	1.50
ROOFERS	1.50	1.50	1.25	1.37½	1.37½	1.37½	1.25	1.37½	1.37½
SHEET METAL WORKERS	1.50	1.50	1.50	1.50	1.50	1.50	1.37½	1.50	1.50
SPRINKLER FITTERS	1.58	1.58	1.53-1/8	1.70	1.68¾	1.62½	1.70	1.70	1.50
STEAMFITTERS	1.75	1.75	1.53-1/8	1.70	1.68¾	1.62½	1.50	1.70	1.50
STONESETTERS (MASONS)	1.87½	1.87½	1.50	1.75	1.75	1.50	1.75	1.75	1.50
TILESETTERS	1.50	1.50	1.37½	1.50	1.37½	1.50	1.50	1.50	1.37½

Prepared and compiled by
CENTRAL CALIFORNIA CHAPTER, ASSOCIATED GENERAL CONTRACTORS OF AMERICA
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ARCHITECTS NEEDED FOR WAR WORK

Eldridge T. Spencer of the Northern California Chapter, American Institute of Architects, has received an urgent request from that organization's Washington representative to help obtain civilian architects and engineers—professional and sub-professional—to complete the construction of vital military facilities in one of our territories.

Required personnel are in regular Civil Service grades, and types needed are:

Architectural designers and draughtsmen, construction superintendents: 6 in P4, 3 in P3, 13 in P2, 7 in SP8, 6 in SP7, 2 in SP4 and SP5.

Structural and civil engineers and draughtsmen; surveyors, topographical and safety men; 9 in P4, 24 in P3, 11 in P2, 22 in SP8, 49 in SP7, 17 in SP6, 3 in SP5.

Mechanical, electrical and hydraulic engineers and draughtsmen: 3 in P4, 7 in P3, 5 in P2, 1 in SP8.

Contracts are to be for one year at regular rates of pay, plus 25 per cent, plus overtime. Cost of travel also will be paid to and from the point of hire. Estimated cost of living is about $37 a month which includes rent and subsistence.

Further information may be obtained from D. K. Este Fisher, Jr., Washington Representative, A.I.A.

BRITAIN WANTS PRE-FAB HOMES

England is looking directly to America for a half million pre-fabricated homes, to supply half of the million British homes that have been destroyed or damaged. The program would be financed by the British government and the houses would be rented to the bombed out home owners. Unfortunately the known productive ability of all concerns engaged in manufacturing pre-fabricated houses in the United States would not total more than 50,000 homes a year. Under the surface, we may have more capacity. In any event, if Great Britain depends on the United States, it will be a long time before pre-fabricated homes may be bought as were automobiles in the '30s.

The Royal Institute of British Architects has put its okay on the Tennessee Valley Authority type of houses ranging from $1,500 to $3,000 a unit.

The TVA type of home consists of rooms or sections which may be trucked to the site and put together. In the smaller units the sections are 8x24 feet. Maximum space utilization demands built-in furniture. These houses look like a large widened out flat-top trailer cabin. New designs now have two and three bedrooms, kitchen, bath, and living-dining room.

ARCHITECT LAUDS HOME TOWN

At a recent meeting of the Riverside Chapter of the Building Contractors Association, G. Stanley Wilson, architect, gave an informal talk on "Riverside, its Place in Post-war Future." City officials and civic organizations were represented and were impressed with Mr. Wilson's optimism of Riverside's post-war future.

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SAN MATEO ARCHITECTS NAMED

To advise the San Mateo County Planning Commission and to prepare plans for post-war projects, an advisory board of architects, all residents of the county, has been named by the supervisors, with James Mitchell, chairman. Other members of the board are Hervey Clark, Harry A. Thomsen, Arthur Jansen and Leo Sharp. It is understood the state will match county funds dollar for dollar in paying for post-war plans.

OUR POST-WAR ECONOMIC POLICY

The pace of new residential construction activity in the post-war era promises to be limited only by the availability of skilled labor and materials, Dr. Sherwood M. Fine, principal economic analyst, Foreign Economic Administration, asserts in "Public Spending and Post-war Economic Policy," just published by the Columbia University Press.

Government activity in this field should be restricted to essential operations, Dr. Fine declares, pointing out that the existence of a major public works program which competed for labor and materials with private demand would contribute to an inflationary price movement on the one hand and to a reduction in the scale of private construction activities on the other.

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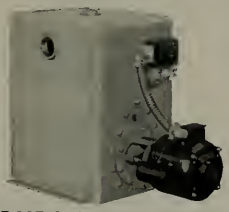

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an engineer
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a construction specialist
a coordinator
an aesthete
a raconteur
an evangelist

or maybe something that partakes of all of these qualities, yet is different.

—L. A. Chapter Bulletin.

PUBLIC SAVES FOR HOMES

The demand for new homes after the war will be greatly stimulated by the fact that during the emergency more of the nation's families than ever before have saved enough money to enable them to make a down payment on a new dwelling, Russell G. Creviston, chairman of the Post-war Committee of The Producers' Council has stated.

"Liquid savings in the hands of individuals and owners of small enterprises have increased by about $100 billion since 1939, both as a result of the higher level of incomes during the last four years and as a result of the inability of consumers to spend a normal proportion of their incomes during the prolonged period of decreased production and limitations on private construction," Creviston pointed out.

"In the past many thousands of families desiring to own homes of their own have been kept out of the market for the simple reason that they never have been successful in accumulating enough savings to permit them to make the necessary down payments. The number of families which now have saved the $400 to $600 or more required to finance a new home is not known, but the wide distribution of war bond sales and of savings bank deposits indicates that the number must be considerable.

"That a high percentage of the families able to acquire a new home after the war will do so at the first opportunity is indicated by several recent surveys, including that by the Office of Civilian Requirements in

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624 Sacramento Street, San Francisco

which 71 per cent of the families surveyed reported that they were saving money for the specific purpose of purchasing a home.

"The Market Analysis Committee of The Producers' Council has estimated that about 5,200,000 new dwelling units will be built during the first six years after the war. Since by the end of the six-year period there will be an accumulated need for nearly 10,000,000 new residential units to take care of newly formed families and others which have no home of their own or are living in substandard units, and since liquid savings have been increased by an average of more than $2,000 per family since the beginning of 1940, it seems safe to assume that the committee's forecast can be realized in full, provided the construction industry offers attractive values in post-war homes."

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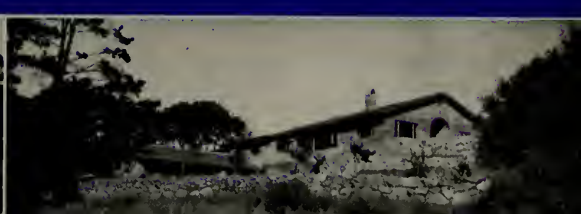

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• ARCHITECT AND ENGINEER

Vol. 159 No. 1

MARK DANIELS, Editor — E. H. WILDER, Associate Editor — MICHAEL GOODMAN, Book Reviews — E. N. KIERULFF, Contributing Editor

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OCTOBER

COVER: Hilltop Adobe Dwelling, San Carlos

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RUNNING FIRE — by MARK DANIELS

• *IN RETROSPECT.*

Quite some time ago, and with no idea of starting something, this column began a series of items which were all "IN DEFENSE OF," a sort of "JE DEFENDE!" rather than 'J'ACCUSE!" If I am not mistaken, the first of the series was entitled "IN DEFENSE OF SHORT SKIRTS." Some people thought it was rather clever and amusing, but heavens knows, no one thought the girls would take it so seriously!

Later on came ingenous and insouciant items such as "IN DEFENSE OF LOAFING," "IN DEFENSE OF LYING," and in fact in defense of many human habits that, as practiced by most of us, are quite innocuous. Unfortunately, they all seemed to be those, with the exception of Short Skirts, that are erroneously considered as habits of the scribes and so-called columnists. In thinking over the series, it occurred to me that it might be the part of strategy to continue with a few items such as "In Defense of Prayer," "In Defense of Industry," "In Defense of Accuracy," or even "In Defense of Columnists," but on the last there would be so little to write.

• *JE DEFENDE!*

While a defense of the columnist, per se, may inhibit any writing ability one may have, a defense of RUNNING FIRE may not be amiss, again, per se. In this page, which I shall refrain from calling a column, the hope has been to hold up before our readers various unrelated thoughts that are more or less common to all architects, for other architects to determine whether they are common or not. The interjection here and there of abstract thoughts is in line for, personally, there is no reason to think, as some do, that the architect is so engrossed with the problems of his profession that he cannot comprehend or enjoy those of a layman or another architect A little fun, amusement or irony here and there frequently assists in seeing things in a normal light or at least in bringing things down to earth that were run up into the treetops by worry and single-track thinking. Perhaps RUNNING FIRE is itself becoming single-tracked. Ten years of writing under the same title is a long time and apt to become monotonous even if the subject were "Variety." Only the verdict of the subscribers can direct us in the advisability of its continuance.

• *THE ENGINEERS MEET.*

The joint meeting of the San Francisco section of the American Society of Civil Engineers and the Structural Engineers Association of Northern California, held in the P. G. and E.'s auditorium was a real treat, made so largely by the clear thinking and the screen pictures presented by Dr. Nathan Bowers. These pictures, gathered by Dr. Bowers while traveling some 28,000 miles as a war correspondent accredited to the staff of Adm. Nimitz, were devoted largely to the activities and work of the Seabees in the Southwest Pacific and, accompanied by Dr. Bowers' clear, straightforward talk, with no punches pulled, presented a mental picture hard to equal.

It also presented another picture, that of two branches of a profession cooperating wholeheartedly to produce an event of importance. The Presidents of the two societies, Mr. Thor Corwin of the S. F. Sect., Am. Soc. C. E., and Clarence E. Seage of the Struct. Eng. Assn. of Northern Calif., had worked as one man in bringing about this illustrated talk on the work of the Construction Engineers on the Pacific Battle Fronts, an accomplishment that might well set a pattern of policy for similar professions which split up into smaller organizations, not excluding the architects.

• *TREES AND ARCHITECTURE.*

Joice Kilmer said, "Only God can make a tree," but it takes man to abuse them. This does not exclude architects, for you will see plans where certain varieties of trees are used to mask or adorn a building which either do not exist at all or will not grow in the country where the building is located. Of course, if the tree is planned to mask an unsatisfactory piece of architecture most designers think that any old tree will do, which is not always true. But the fact remains that a knowledge of a brief list of trees, and even shrubs, should be a distinct aid in planning. In the latest edition of "Architectural Graphic Standards," the list and indicated sizes of trees is good, but all too brief and the illustrations are often deceiving.

Tim Pflueger, who has a "Graphic Standards," although he seldom has to use it, once said, "When I can spare the time and can find the man who will teach me, I am going to get the correct dope on the major trees and shrubs that we use with architecture here in the West." It has occurred to the publishers of ARCHITECT AND ENGINEER that something of value along this line might be of use to subscribers.

• *APOLOGY STILL COMING.*

The entirely misunderstood item, "Useless Laws," must await the necessary relief from pressure for time occasioned by the resignation of Mr. Fred Jones as editor. However, I will state here that the item was not intended as any form of criticism of the State Department of Architecture for which I have a deep and abiding admiration. It was meant, more or less, as a sad comment on the fact that information on conditions was not in the hands of the architects and their organizations, but had to be read in the daily press reports of the findings of a student in Berkeley. A further explanation awaits the receipt of that report of Mr. Martin.

A. I. A. ACTIVITIES

At the meeting of the Northern California Chapter of A.I.A., held at the Engineers' Club in San Francisco on the evening of October 3rd, the members and guests were addressed at length by Mr. Samuel Lundine and Mr. Earl Heitschmidt, both active members of the Los Angeles Chapter. Mr. Lundine confined his talk mostly to the activities of the Southern Chapter and what they had done to build up the attendance to the meetings and the general public interest, but while Mr. Heitschmidt's talk was the shorter, it set forth the major purpose of the meeting and resulted in a lengthy general discussion. The subject of his talk was the unification of the architectural profession throughout the State.

As a foundation upon which to predicate any such discussion he made the statement that "One organization of architects in California is preferable to two organizations." With other members of the A.I.A. and with members of the State Association of California Architects, Mr. Heitschmidt had been in all but continuous conference for some time during the past month or so. As a result and as a basis of unification for the profession, he said, it was suggested that there be formed a State Council of California Architects composed of five districts to be coterminous with the present chapter territories; that each district comprise a district society of the American Institute of Architects; that the members of the district society will be members of the A.I.A.; or associates, not A.I.A. members or affiliates, composed of students and draftsmen. A last condition was that all classes must be dues-paying members.

Mr. Heitschmidt went on to say that substantially this plan of unification had been adopted and already put into very successful operation in several States. Well, if it is true that "in union there is strength," something of this sort should have been done long ago.

Public Housing

The Northern California Chapter has canvassed their A.I.A. members on their opinions of the desirable way to operate public housing. The members were asked to vote on one of three methods of financing. (a) Entirely on Federal money; (b) public housing with Federal aid, and (c) housing entirely on local money. The poll resulted in the majority voting for plan C, i. e., locally financed public housing. Next was Federal aid public housing and last was A, or Federal public housing.

ANNOUNCEMENT

"It's a long lane that has no turning," and Mr. Fred W. Jones has followed that long lane of editorship with ARCHITECT AND ENGINEER for nearly forty years. Through times of plenty and times of drouth, through two wars, through a fire and earthquake, through many national political upheavals, through periods of plentiful paper and now paper shortage, he has edited ARCHITECT AND ENGINEER without the missing of a single monthly number, a record that is hard to equal on the part of any editor in these United States. Now Fred is going to try to take it a little easier. He is going to make a turn in the long lane of hard grind. He is going to devote most of his time to the advertising department of the journal he has directed so many years.

Beginning with this issue, Mr. Mark Daniels, who is not unknown to the readers of ARCHITECT AND ENGINEER, will take over the duties of Editor. Mr. Daniels has been on our staff for several years and will continue with his column "Running Fire," and, we hope, with his occasional free lance fiction and essays.

The policy of directing the effort of ARCHITECT AND ENGINEER toward the advancement and betterment of that kind of information desired by the ENGINEERS and the ARCHITECTS in our Western empire will still remain paramount, and we hope our subscribers will be free with their criticism and comments.

THE MANAGEMENT.

ENGINEERS, DRAUGHTSMEN AND ARCHITECTS NEEDED

Confronted with a manpower shortage in the preparation of the post-war building construction program of the State of California, the Division of Architecture is urging all persons who are eligible to take examinations for new positions with the division set up by the Personnel Board, to do so.

State Architect Anson Boyd said that military leaves granted to employees of the Division and the resignations of others who entered wartime employment have seriously depleted his staff. The legislature has set up a total of $112,000,000 for plans, surveys and acquisition of right of way for the post-war building program and Boyd said that additional employees are needed by his division to carry out this projected work.

CHINESE POTTERY OF THE PRE-CHRISTIAN ERA

PRE-CHRISTIAN ERA CHINESE POTTERY

By Chingwah Lee*

(Mr. Chingwah Lee is a noted collector and connoisseur of Chinese Ceramics whose personal collection is now on display at the De Young Museum (through October). Mr. Lee is currently writing a **Handbook on Chinese Pottery and Porcelain,** a work which will introduce many additional Chinese ceramic terms to the English readers.—Editor.)

According to Chinese writers nothing can be accounted old which took place after the Chin dynasty (221-206 B.C.). It was during this short but vital period that China was unified by Shih Huang Ti ("The First Emperor," builder of the Great Wall) with a system which was so practical and so well suited to the temperament of the Chinese people—a monarchy at the top but democracy at the bottom—that it remained in use till the time of the establishment of the Republic in 1911. What is the period before the Chin dynasty like? Of all the things that we can marshal together for the study of early China that of pottery is perhaps the most satisfactory, for we have nearly a continuous series which dates from Neoltihic time to the Chin dynasty.

The earliest pottery ever to come out of the earth of China are those excavated by J. G. Anderson and his associates in Kansu, Honan, Shansi, Manchuria and other northern areas. These are named after the sites or stations where they were found, and some of these place-names serve to designate the various **cultural stages** to which they belong. Those at Ch'i-chai ping in Kansu are said to represent the last phase of the neolithic and have simply scratched geometrical pattern as decoration. "An unpracticed eye would hardly distinguish it from the ordinary run of European neolithic vase. But let us not forget that we are in China. This simplicity, verging on an austere sobriety, and this strength and boldness of form, which display the intrinsic quality of the material to the best advantage, proclaim the eternal virtues of the aesthetic sense of the Far East." (René Brousset in **Civilization of the East.)**

The next and best known period, the Yang Sha of Kansu and Honan is classified as aenolithic for it is a transitional period from the Neolithic to the early Metal Ages. The vibrant quality of the painting on the Kansu ware is matched by the superior potting of its Honan cousin. Its calabash-like shape, not unlike those found in Russian Turkestan, is generally decorated by black and red design on a buff ground. The Yang Shao are followed by about half a dozen types which show many divergent characteristics. The body material varies from a dark grey to a brick-red and from a finely washed clay to a coarse ware with a sandy texture.

* Mr. Lee has served Hollywood as an art consultant on many productions. He has just returned from taking the part of **Guerrilla Charlie** in a coming production, **"Thirty Seconds Over Tokyo."**

They were apparently fired at a temperature of about 1300-1400° C, a firing which presupposes a good kiln with an air blast. While most of them are made with the coil method some show that a wheel had been employed. They may be said to date from 3500 B.C. to 3000 B.C.

By the time of the Shang dynasty (1765-1122 B.C.) nearly all traces of these aneolithic ware were gone. "It was a noble art—as fine, it has been said, as any art produced by Neolithic man anywhere. But it was a part of a cultural complex which had Western connections; the Shang culture, which had most of its ties in the East, knew it not. One lone painted potsherd has been found in the Shang remains, and that, a typical relic of the Yang Shao civilization, was probably already a curiosity in Shang times." (Herrlee Clessner Creel, in **The Birth of China**).

During the Shang dynasty, strikingly elegant pottery was made, if we are to judge from excavated specimens from Anyang, the old capital of the Shang state. These have raised designs of fret-work, lui-wen (thunder clouds) floral scrolls and other patterns. The material is a finely levigated buff or white clay, and the underside of some of the fragments have textile impressions. Alongside this fine ware a cruder sturdy type was also found. Some cooking vessels have sand incorporated into the paste, said to be made deliberately to increase the conductivity of pottery to heat. A few specimens, made from reconstructed fragments, are nearly three feet high and half as wide—not an easy thing to make, even in later time. Glazing was practiced for a short time, the art failing to survive this period.

The Chou dynasty (1122-221 B.C.) is an appendage to the Great Shang culture. Like the Romans who conquered the Greeks they adopted Shang learning and displayed great political and legal wisdom but were poor pupils in the world of art. A great deal of the Chou energy as spent in convincing the conquered Shang that they were benevolent rulers.

Buff and grey vessels are decorated with diaper or rope pattern in low relief. A few of these have seal impressions stamped into the clay. Colored slips, red, black and tea-yellow, were often used on those without relief design. The Chin dynasty which follows may be considered as a transitional period linking the Chou dynasty with the great Han dynasty (B.C. 206-A.D. 221). In many ways it is closer to the Han dynasty than the Chou dynasty, so much so that scholars often speak of the Chin-Han period. A description of Han ware will thus serve to complete this outline of pre-Christian era Chinese pottery.

The Han dynasty witnessed the application of a green or olive-green glaze to pottery on a large scale. This glaze, of the soft lead silicate type, acquired a beautiful silvery or golden iridescence —not unlike ancient glass—as a result of its long buried condition, a patina which only time can produce. Alongside the glaze ware are unglazed pottery which are generally coated with a white slip on which are painting in black, red and turquoise pigments. The red pigment when painted on the biscuit is very durable and may have been fired. The body material is usually a hard, grey pottery, but some are brick-red or pinkish-white. Besides vessels of all kinds the Han potters made figurines, models of farm buildings, pagoda-like towers, well-heads, fortified buildings and dwellings—all for the use of the dead. The figurines include medicine man or magician, guardians, attendants, and domestic animals. The Han figurines, in fact, is the forerunner of those magnificent musicians, dancers, camels, horses and other figurines which characterized the period which follows.

DRAWING BY JACK GAGE STARK AT THE DE YOUNG MUSEUM SEPT. 15 to OCT. 8. It is to be regretted that Mr. Stark's and Mr. Ret's exhibits did not last a month longer.

ONE HUNDRED AND ONE WAR PAINTINGS ON EXHIBITION AT THE CALIFORNIA PALACE OF THE LEGION OF HONOR

The group are called "Paintings of Naval Action" and are scheduled to open for inspection at the California Palace in Lincoln Park, San Francisco, and will remain on exhibition from October 23 through November 1. They have been given to the Navy and are to become a part of the Navy's permanent War Museum. They are already being put to effective use by the Navy. The painters were given complete freedom except on the use of restricted material.

The collection was broken down into groups such as Pre-flight Training, Training for Ground Crews, Lighter-Than-Air Aviation and other classifications and painters were selected to portray the subjects. Among those selected were Joseph Hirsch, Georges Schreiber, Adolph Dehn and Lawrence Beall Smith, whose dramatic series gives a vivid glipmse of what happens behind the news of actions against the Japanese.

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IN THE NEWS

HOW MANY AND HOW MUCH?

The majority of American families expecting to build their own homes to order when restrictions are relaxed on manpower, materials and equipment, are budgeting an outlay of $5,500 or more for construction alone, exclusive of land cost.

Finding to this effect, based on an analysis of authenticated reports on single-family dwelling construction contemplated by 18,428 families personally interviewed during the last seven months by its staff in all states east of the Rocky Mountains, was announced recently by F. W. Dodge Corporation, fact-finding organization for the construction industry.

A spokesman for the company pointed out that the greatest demand for homes as revealed by this survey is in the higher cost brackets of construction prohibited during the last three years by defense and war restrictions. Two-thirds of the post-war demand is for homes to cost more than the War Production Board's maximum for eligible war workers, the executive declared.

The survey shows that fewer than 12 per cent interviewed expect to obtain a home built to order for $4,500 or less, exclusive of land cost. It was also made known that 16 per cent expect to spend $9,500 or more for dwelling construction.

The Dodge spokesman said that the figures apply to homes built to owners' orders, and not to dwellings built by operative builders for sale or rent.

A separate survey among 200 operative builders in several states conducted by Sweet's Catalog Service shows that 117 already have prospective buyers, and 43 have contracts now to build homes to owners' orders. The 200 builders polled said that they planned at present to build 15,882 dwellings during the first two years materials and manpower become available and cost maxima are unrestricted. The builders said that more than half of the homes built for sale would cost $7,000 or more.

ABOUT THE SAME STORY FROM THE MASONITE CORPORATION

Most families intending to build a home after the war are planning to spend from $4,000 to $10,000, according to a nation-wide survey released today (Sunday, Sept. 24) by the Masonite Corporation. Half expect their home to cost between $4,000 to $6,000, and approximately one-quarter estimate from $6,000 to $10,000. One in six hopes to pay less than $4,000 and only one in twenty is planning to spend more than $10,000.

No marked preference for either traditional or modern style was found in the survey. Practicability, convenience and ease of maintenance were deemed more important than adherence to any particular style by the more than 1,000 men and women who responded with details concerning the homes they hope to build. In most cases, the exterior will be wood, either natural or hardboard, although brick veneer, solid brick and stone followed closely in the order of preference.

Inside there will be a living room, dining room, kitchen, two or three bedrooms and a bath. They will be easy to clean and designed to take advantage of modern labor saving devices. Painted or panelled walls were preferred two to one as compared with papered walls, and walls and ceilings probably will be of dry wall construction, as most of the prospective new home owners considered crack-proof walls and ceilings an important feature.

Most of those planning to spend more than $6,000 want either a den or recreation room with the odds slightly in favor of the den. The combination living-dining room, popular in city apartments, was favored by those who expect to pay less than $4,000, but found little approval by those who expect to pay more. Insulation was specified as a must by all of the prospective builders, but most of them regard a powder room as unnecessary.

A marked variation from the traditional was a preference expressed by more than a third for a ground floor utility room in place of a basement. Hardwood was the favored material for floors, followed closely by wall-to-wall carpeting, linoleum and hardboard.

NEW, SAFE INDUSTRIAL FLUORESCENT

A new industrial and utility lighting-fixture for use with 2-40, 3-40 and 2-100 watt fluorescent lamps has just been announced. The new Maze-Lite is built of heavy-gauge steel throughout, made possible by the War Production Board's recent release of heavy-gauge steel for lighting purposes.

Made entirely with dies, it is strong and rigid, and is durably finished. Its reflector is available with either porcelain enamel (1200°) surface, or with synthetic enamel (300°) surface. Reflector-ends are rounded to eliminate sharp corners for maximum safety-conditions.

The Maze-Lite can be had with hot-cathode or cold-cathode auxiliaries, and its reflector provides high light-utilization with normal lamp shielding. Is immediately available.

The Maze-Lite is manufactured by the Edwin F. Guth Co., 2615 Washington Avenue, St. Louis 3, Missouri.

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In designing this home for Mr. W. B. Baily in Westwood, Los Angeles, architect *Allen Siple* achieved an exceptionally pleasing exterior. But equal thought was given to *design for living,* including healthful, carefree warmth. Firmly specified was . . . PAYNEHEAT.

ARMY-NAVY E

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SWORDS INTO PLOUGHSHARES THAT WILL TURN UP JOBS

"Nothing is quite so vital to the economic health of the country as cash in the pocket of the wage earner. Hence there can be no legible yardstick of greater importance than employment and payrolls."

This editorial statement in a recent issue of "Business Week" is an important one for us to have in mind as we think of planning for post-war California.

As most of you are well aware, California's present condition as measured by this yardstick is healthy in the extreme. Average weekly earnings are at an all-time high, and our payrolls have been increased by nearly a million workers in the last three years. Nearly 3½ million people are employed in this State today—almost one-third of them being women. Three years ago we listed 327,000 men in our available labor force as unemployed; today there are less than 40,000, and most of these are for one reason or another unemployable.

Apparently we have already scraped the bottom of the barrel, for the rate of increase in employment slowed up each month of 1943 until August, when it began to decline. The decrease is greatest in the large industrial plants of Los Angeles County, which are still short of manpower for vital war production. Whether new measures now being taken, or other more drastic measures that are proposed, will secure many additional workers still remains to be seen; in any event it seems clear that we have reached a state of what may truly be called full employment.

What will be the picture three months or three years after the war is over? Will a shutdown of war industries result in widespread unemployment, confusion, and personal hardship? Will there be a great migration eastward of men and their families who will carry back the news of a terrible economic blight in California?

Or will there be a reasonably rapid business readjustment that will enable most of those who are now here to remain as permanent California residents if they wish to do so?

These are the questions that people are asking about our post-war prospects. They are the basic questions that must be answered, and by the answers we will judge the success of all our post-war planning. To those who say that the answers are bound to be favorable, let me point out a few facts of life that even the most incurable optimist can hardly overlook.

1.—The greatest volume of post-war aircraft and shipping construction that any estimate has mentioned will be only a small fraction of what we are now turning out.

2.—On the great circle maps that are being used to plot our future routes of commerce, Chicago and Minneapolis are closer by air to the Orient than any cities in California, while Seattle and Vancouver are closer to the Orient by water than the ports of San Francisco or Los Angeles.

3.—Great wartime industrial developments have taken place in the deep South as well as in the far West, and those southern areas will rightly and vigorously demand a large share in post-war production. In the long-established industrial centers of the East there is also a lot of serious concern about the post-war threat of our western industrial empire.

4.—Many of our new California industrial plants are really nothing more than sheds and assembly lines; there is relatively little permanent investment, and much of what there is

(See Page 14)

* Extracts of an address before the California Housing and Planning Association.

RESULTS OF SECOND DINING ROOM CONTEST

Sponsored by McCall's Magazine

"DINING ROOM OF TOMORROW"

The analysis of the second of the four "Home of Tomorrow" decorating contests sponsored by "McCall's Magazine" is now available. This report covers results of a dining room contest and is full of signposts forecasting probable post-war buying for the homes of America.

There can be no doubt that women want sunlight and outdoor views in their dining rooms—there is a greater demand for windows than for any other architectural or decorating feature. More than 36% of the voters feel they must have wide-view windows as soon as possible, while another 28.2% are considering them. Bay windows, as a specialized form of large window, draw less interest than the "larger windows," but they are clearly a popular dining room feature, nevertheless.

Very few houses now have terraces adjoining their dining areas, but the idea seems to hold tremendous appeal——almost 75% "must have" or "may get" one. It is interesting to note that a terrace may be considered by new builders as well as by those who are remodeling.

There will be a big post-war market for built-in storage in the dining room. The "moderns" place compact and convenient storage in dining rooms high in their list of "must haves"—almost as high as for larger windows. Of course the term "built-in" does not exclude corner cupcupboards, but when voters found these two items next to each other in

(See Page 47)

This label on lighting equipment means lower maintenance expense

SMOOT-HOLMAN COMPANY
SMOOT-HOLMAN
INGLEWOOD, CALIFORNIA
MADE IN U.S.A.

The Smoot-Holman hall-mark is more than an identifying feature. It is your assurance that the lighting equipment so marked is engineered and manufactured to give longer life at a minimum of maintenance expense. Smoot-Holman users tell us that this margin of quality is apparent in the trouble-free performance that is characteristic of this equipment.

SMOOT-HOLMAN
COMPANY
INGLEWOOD, CALIFORNIA
Offices in Principal Western Cities • Branch and Warehouse in San Francisco

The Conversion of a Skeptic

ARCHITECTS are the world's worst skeptics . . . and rightfully so.

When a man asks his architect to design a home, he expects not only sound, fundamental design, but also the honest recommendation of materials to go into that home. He expects the use of modern developments, but he *doesn't* want untried products that are liable to "go haywire" in a few months.

This responsibility rightfully makes skeptics.

We at the Colotyle Corporation learned that years ago. When we pioneered the first plastic-coated wallboard for bathrooms and kitchens, we made honest, sincere claims for Colotyle that raised many a quizzical eyebrow among architects.

Time has proved the merit of these claims. With each new installation . . . over 25,000 before the war curtailed production . . . more and more architects were convinced of Colotyle's advantages. Today, Colotyle has the general acceptance of architects, builders and home owners alike.

Let us look at these claims, and see how they have stood the test of time:

Nobody ever questioned either the inherent beauty of Colotyle, or the beautiful effects which could be obtained by the various plans of sheet arrangement. This claim was accepted by everybody.

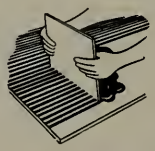
1 · WATERTIGHT JOINTS

Colotyle claimed that its engineering staff had developed a SURE watertight joint at the tubline, and in corners . . . that these special joints prevented water seepage behind the walls, common to lath and plaster and other types of walls.

Settling and lumber shrinkage, causing movement of as much as ⅜ths of an inch have failed to break this watertight seal. Even moderate earth tremors did not affect it.

2 · APPLICATION METHODS

It was claimed that, with sound foundation wall, Colotyle could be installed securely and permanently with the use of a mastic cement, and without the use of nails on exposed surfaces.



No wall sheet, installed according to Colotyle's engineered application methods, has ever pulled away from the foundation wall. Another proof of Colotyle's sound engineering.

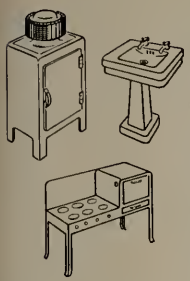
3 · UTILITY

It was claimed that a rigid, one-piece wall sheet was superior to any other type of wall.

Colotyle's exclusive triple-tempering process, whereby any unevenness in the foundation wall was overcome to provide a truly flat wall surface, has proved to be far more satisfactory than the wall created either by flexible material, or small blocks, individually installed.

4 · DURABILITY

It was claimed that Colotyle's plastic-coated surface was unusually resistant to heat, cold, soap alkalis, etc., and that Colotyle would outlive the up-to-dateness of the home in which it was installed.



The styles of the range, refrigerator, and even the plumbing fixtures of ten years ago are already obsolete, yet the Colotyle wall installed years ago is still smartly modern in style, in harmony with even the projected ultra modern appliances and fixtures planned for the post-war era. Modern simplicity of styling, and extreme resistance of genuine plastic-coating will keep Colotyle continuously in good taste.

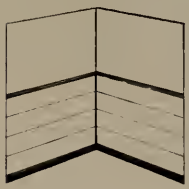
5 · NATURAL LUSTRE

It was claimed that the plastic-coating process gave Colotyle a natural, soft lustre like that of real china that would last indefinitely without the use of waxing or polishing agents.

Homeowners tell us that all they have ever used on Colotyle walls is a damp cloth for cleaning. No abrasive soaps or cleansers, no artificial polishes or wax has ever been required.

6 · CRACKPROOF

It was claimed that Colotyle provides one-piece full-length walls that are crackproof.



Regardless of house or foundation movement that would crack plaster or tile walls, not a single instance of a cracked wall sheet has ever been reported to the manufacturer. Colotyle engineering provides tolerances for such movement.

7 · ECONOMICAL

It was claimed that because of the complete absence of upkeep, and the extreme durability, no other wall material was as economical as Colotyle.

Colotyle pays for itself in lasting satisfaction, and in painting never done. Homeowners tell us that the most economical part of their houses are their Colotyle walls, because they never require attention.

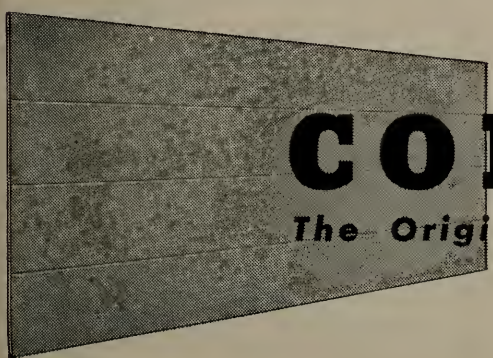
★ ★ ★ ★ ★

THESE were the major claims made when Colotyle was first introduced. Time has proved every claim sound.

Colotyle, during the war, is doing its share to speed Victory. The famed Pacific Hut was created and developed in the Colotyle plant . . . over 65,000 prefabricated shower cabinets were manufactured for war housing, to mention just two activities.

When peace comes, Colotyle will have the added advantages of its wartime technological advances plus the intensive research in the development of plastics and their application to wall materials.

Colotyle will continue to be a product that will merit the whole-hearted endorsement of architect, builder and home owner—a wall board years ahead of the field, yet time-proved for durability.



COLOTYLE

The Original Plastic-Coated Wall

● The largest manufacturer of prefinished wall sheets in the West . . . pioneer of more original ideas in the manufacture and design of one-piece walls than any other single manufacturer.

"SWORDS INTO PLOUGHSHARES"

(Continued from Page 10)

belongs to concerns that have their headquarters in the East, with no roots in California. Furthermore, a large number of our more permanent installations are Government-owned or financed, subject to control at Washington by Federal administrative agencies and by Congress.

Now let's turn the slate over and look at the other side. There we find that the economic shift to peace will probably not be a sudden or an immediate event, particularly on this coast where we face an enemy who is likely to give us a long, tough fight. We'll reach a peak of production and then we'll taper off gradually, as demands are limited to what is needed for maintenance of our forces and replacement of material losses in combat. Those of our war workers who want to go back East may be able to return at a gradual rate rather than in a sudden rush. Many civilian industries and services now badly undermanned may be able to return gradually to full strength while the war is still going on.

Last fall we had a very interesting conference in San Francisco, attended by post-war planning officials from all the far western States. Because we have all heard so much aimless talk about post-war problems, I am glad to be able to say that I was impressed with the grass roots discussion at this conference as to the specific steps being taken in California and neighboring States to deal with conditions that will undoubtedly present to all of us the most difficult economic questions we have ever faced. Let me try to give you some of the significant thoughts that came out of that conference.

First of all, I think we recognize that California cannot make any post-war plans on an exclusive or self-sufficient basis for California alone. Our economy is bound up with the whole Pacific region; only by close co-operation with our neighbor States can we hope to work out solutions with any degree of success. This is not to say that planning doesn't begin at the local community level; it must always start there, of course, but the scope of our plans must extend far beyond sectional or State lines. There is heartening evidence that State officials and leaders of private industry throughout the West are becoming more and more aware of this basic necessity.

Next, I think we are getting over the notion that there could be a sudden withdrawal of government wartime controls and a complete shift of all economic responsibility to private enterprise. Our chief problems are war-caused problems. They were not created by normal productive enterprise, and they can't be solved without the help of State and Federal agencies. If it takes extraordinary government effort to wage a war, we must expect it will take extraordinary government effort to readjust our economy to peace.

Those who foresee the disbanding of war-created administrative agencies as soon as the shooting is over should remember that even today the greater portion of our economic controls are administered by constitutional departments of government or under legislation enacted long before the war began. Among the agencies which will certainly plan an important part in post-war readjustment are the Department of Labor, the Department of Commerce, the War and Navy Departments, the Veterans Administration, the Federal Social Security Agency, the Federal Works Agency, the Reconstruction Finance Corporation, and the Federal Housing Authority. None of these agencies was created by Executive Order; none can be abolished by Executive Order.

I think, too, that we are developing a new conception of how State and Federal agencies can work together. There has been a lot of

(See Page 16)

TIMBER *plus* TECO

MEANS MODERN ENGINEERING APPLIED TO HEAVY-DUTY WOOD STRUCTURES

Test assembly in fabricator's yard of (30' x 100' x 8') knocked-down 300-ton capacity barge with deck cabin 26' x 60' for use by the Army Engineers in northern rivers and lakes designed and fabricated for easy field assembly by Henry Mill and Timber Company Tacoma, Washington.

Postwar projects will profit by the tremendous progress made in the designing and construction of heavy timber structures.

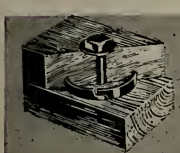
As you work on specifications and designs for after-the-war timber structures it will pay you to check up on what others have done with the aid of TECO connectors.

Heavy structural dimension and timbers are available for essential construction. Expert timber fabricators are ready to quote you.

Write or call our Western service and sales office for quick action on TECO timber connectors and grooving tools. Informative, illustrated booklets and helpful bulletins sent to you on request—use the coupon.

Timber Engineering Co. Inc. of Washington, D. C.

Monadnock Building, 681 Market Street, San Francisco



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SPLIT RINGS • SHEAR PLATES
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"SWORDS INTO PLOUGHSHARES"

(Continued from Page 14)

talk about invasion of states' rights, centralization of power in Washington, and by-passing of local government functions. I think that in Washington as well as here on the Coast those responsible for Federal policy are coming to realize that their work can best be done by closer integration with State and county departments familiar with local conditions. We are hearing a little less about local **autonomy,** and more about local **initiative.** There is a little less talk of states' **rights,** and more talk of states **responsibilities.** We have a job of teamwork to do, and in many fields of post-war activity state and local governments will share with the Federal government some very essential functions—Veterans' services, maintenance and disposition of government properties, gradual demobilization of the armed forces, public works and housing construction, development of recreational facilities,— to name just a few. The work of inter-city and regional planning commissions, inter-state cooperation commissions, and similar bodies will play a vital part in the tremendous task that can only be accomplished by teamwork between government, labor and industrial management.

The State of California, as you know, has already taken extensive measures in anticipation of the post-war period. Funds have been appropriated for the preparation of detailed plans for highways and other public works. Large reserves are being accumulated to meet the cost of these programs when the time comes for launching them. Generous provision has been made for the vocational education of war veterans. Facilities have been set up whereby they can purchase farm homes with the aid of State credit, as was done following World War I. Legislative committees are studying various special phases of post-war problems. A permanent body has been set up replacing the State Planning Board, to secure facts and correlate the planning of government and private industry. This is the Reconstruction and Reemployment Commission —a nine-man board whose Director is Alexander Heron. The prominent use of the word "reemployment" in the name of this new State agency reflects the importance attached to that phase of its work, and the same word might just as properly be inserted in the names of any of the other agencies I have mentioned, for the providing of jobs is implicit in the post-war aims of all of them.

It would avail us little at war's end if we should beat our swords into plowshares and our spears into pruning hooks only to find that there were not enough fields to plow or not enough vineyards to prune. And the transition from war to peacetime employment in this century is a great deal more complicated than in the days when plowshares and pruning hooks were the principal tools of industry. We might easily find ourselves in a situation described by another Biblical quotation: "They asked for bread and we have given them a stone."

But no sound plans can be made until we know something about how many jobs will be needed to take care of post-war labor displacements. We must make some intelligent estimate of the probable size of the reemployment problem that we'll face in post-war days. Fortunately our State Department of Labor Statistics is in a position to make such an estimate and is working right now on a very careful forecast of this situation. Their figures will undoubtedly be of great help to all who are concerned with post-war planning.

Dimensions of the reemployment problem as revealed by this forecast will probably startle us. We'll probably agree that World Fair's architect Daniel Burnham was right when he said, "Let us make no little plans."

Marching back to .. *What?*

DURING the first six months of peace, a U. S. Chamber of Commerce survey indicates that 1,015,000 families intend to build or buy new homes —592,000 intend to modernize kitchens—496,000 plan new bathrooms.

But what kind of homes? How importantly will advanced design, improved construction and new materials influence their planning?

You already have the answers to many such questions in the versatile performance of steel, not only in industrial buildings but also in dwellings. These qualities will serve an even more important need when it comes to designing the "homes of tomorrow." Modern construction will create many new demands for which the use of steel is a practical "must."

For no other material can serve so many purposes so well. Wherever there is need for strength, durability, resistance to the elements and fire there will be found a steel suited to that need. Mass production of prefabricated units, which seems destined to increase, is just one of the instances in which steel can serve to advantage.

But if steel is to be so important to the building industry so also is having the right source. To that question you will find in Columbia your complete answer. For not only are we one of the largest of Western steel producers, but as a member of United States Steel's great family we can provide you with access to the widest range of steel building products.

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BUILDING STEELS

PLATES
STRUCTURAL SHAPES
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United States Steel Export Company, New York

UNITED STATES STEEL

IN THE NEWS

NEW WOOD FOR OLD

E. I. du Pont de Nemours & Company announced recently that the chemical for treating wood by a new process—which virtually transmutes lumber into a new material—would be known as "Arboneeld."

The process which was announced last April makes soft woods hard, hard woods harder, minimizes their tendency to swell, shrink, or warp, and improves their durability and strength.

The "Arboneeld" solution reacts with the components of the wood and forms a resin within its structure, making the wood hard, stiff, dense and durable.

Mr. Livingston pointed out that "Arboneeld" could bring many improvements to the daily life, principally:

1. Wood products of greater beauty in their natural colors.

2. Wood products that will last longer, wear and scar less.

3. Wood with pleasing new colors, not only on the surface but all through the product.

4. Drawers and doors that have less tendency to stick in damp weather.

5. Entirely new wood products.

6. Wood more resistant to surface damage and easier to repair.

7. Greater prosperity for many wood-growing sections.

Mr. Livingston said the process would enable manufacturers to use plentiful, low-cost woods instead of scarce, costlier varieties. He said "Arboneeld" wood could be worked more accurately, is more resistant to flame, rot, pests and chemicals; and that the new process would bring construction economies through the use of wood of greater strength and stiffness.

Mr. Livingston said the process has not been developed fully in the commercial sense but has reached a point where some processors are nearly ready to begin regular treatment of wood products.

He showed samples of treated and untreated yellow pine and maple. The treated pine was as hard as the untreated maple and the treated maple was as hard as ebony.

STAMPING COMPANY STOCK SOLD

All stock of the Milwaukee Stamping Company, one of the nation's leading manufacturers of luggage hardware, builders' hardware, partitions and shower cabinets, was sold, September 7, to a group of Milwaukee and Chicago investors. The stock transaction is said to involve approximately $1,500,000.

Except for the change in president, the operating management of the company remains as it has been. Mr. B. A. Otten continues as general sales manager and Mr. Joseph Birbaum continues as general plant manager.

Mr. Robinson states the Milwaukee Stamping Company's post-war plans and products are well under way and their present civilian lines will be extended. The company has little or no reconversion problem, as they have been supplying the armed forces and essential civilians with their peace-time products, such as 100,000 shower cabinets for army and navy bases, luggage hardware for field chests, partitions for base hospitals, and builders' hardware for defense housing as well as military needs. This, of course, in addition to the direct war materials which they supplied.

ARCHITECTS SELECTED FOR FURTHER BUILDINGS ON U. C. CAMPUSES

The Board of Regents of the University of California has announced the further appointment of architects for buildings on the campuses at Berkeley and Los Angeles. These architects will operate under the supervision of Arthur Brown, Jr., A.I.A., for those buildings on the Berkeley campus, and under David Allison, A.I.A., for those buildings on the Los Angeles campus.

The architects and buildings for the Berkeley campus so far announced are:

Arthur Brown, Jr.—The Library Annex Bldg. to cost $1,000,000.

Will G. Corlett—The Engineering Design Bldg. to cost $1,000,000.

Warren C. Perry—The Jurisprudence Bldg. to cost $675,000.

E. Geoffrey Bangs—The Chemistry Laboratory Bldg. to cost $600,000, making the present total of this Berkeley group $3,275,000.

The following group on the Los Angeles campus will cost in total $5,050,000. The architects selected were:

Earl Heitschmidt and Chas. O. Matchman—The Library completion to cost $750,000.

Allison & Rible—The Engineering Bldg. to cost $1,250,000.

Marsh, Smith & Powell—The Life and Science Bldg. to cost $1,000,000.

John C. Austin—Business Administration and Science Bldg. to cost $750,000.

Douglas H. McLellan—Administration Bldg. addition to cost $250,000.

Allison & Allison—Social Science Bldg. to cost $750,000.

Paul R. Hunter—Women's Gymnasium addition to cost $300,000.

Over $8,000,000 in this allotment—quite a change from the little red school house which some easterners still think our children attend.

KRAFTILE
CAN ANSWER YOUR SPECIAL CONSTRUCTION PROBLEMS

BELOW: A 10% solution of sulphuric acid riddled the expensive redwood walls of this pickling tank within 30 months without harming the acid-proof brick flooring.

Showing how to construct a tank of Kraftile brick and Nukem jointing compound so as to resist high concentrations of almost any acid and withstand hard usage year after year.

Where ACID or ALKALI enter the design problem specify Kraftile-Nukem Construction

Protection against the corrosive action of acids or alkalis is of primary importance in the design of floors, tanks, sewers and processing units in most industries.

Kraftile offers the architect or engineer the only effective and economical method of providing this protection through use of Kraftile acid-proof brick or tile, installed with Nukem jointing compound.

An example of the acid-resistance of Kraftile-Nukem construction is shown above. This acid tank, built with redwood walls at a cost of $1100, was in such disrepair 30 months later it had to be abandoned. *But the acid-proof brick floor . . . which received much more abuse than the walls . . . is in excellent condition.*

A tank of this type, consisting of a reinforced concrete shell lined with Krafile-Nukem throughout, would have cost about three times as much, but would have lasted at least six times longer. In fact, many similar tanks are in good condition today after 15 years of severe usage.

In chemical plants, oil refineries, canneries, dairies, and scores of other industries, Kraftile-Nukem delivers longer life, better process control, fewer shutdowns, and a very substantial reduction in maintenance costs.

Kraftile consulting engineers will be glad to help you with any problem involving acid-proof or alkali-proof construction or protective coatings. There is no obligation. Just write to

KRAFTILE COMPANY
NILES • CALIFORNIA

STRUCTURAL CLAY PRODUCTS . . . WATER PROOFINGS . . . PROTECTIVE COATINGS
MARINE PRODUCTS . . . ACID-PROOF MATERIALS — MAINTENANCE — CONSTRUCTION

IN THE NEWS

"PLANS FOR TOMORROW" DISCUSSED

During the past few weeks, Delco-Heat dealers and distributors throughout the United States have been holding informal conferences to talk over post-war products and merchandising. Meeting with them have been various representatives of the Delco Appliance Division, General Motors Sales Corporation, Rochester, N. Y., manufacturers of Delco-Heat equipment.

Entitled "Plans for Tomorrow," the subject matter discussed has included the various automatic Delco-Heat units to be furnished for both immediate and future post-war selling, and the sales and advertising program covering their distribution.

Cities in which conferences have been held include, among others, New York, Chicago, Detroit, Milwaukee, Omaha, Toledo, Kalamazoo, and Sioux City.

FLOORING TOUGHER THAN TANKS

This is the heading on a new six-page bulletin on Emeri-Flor, made with Cortland Emery Aggregate, just released by Walter Maguire Company, Inc., 330 West 42nd St., New York, N. Y.

This bulletin is illustrated in color and features the way to cut flooring maintenance costs and reduce slipping accidents. It shows a flooring cross-section, gives flooring test curves for load and strength, presents a simple check-chart for flooring selection, tells how to make sure of a good flooring by test, and includes other interesting data to anyone interested in a heavy-duty, nonslip industrial flooring.

F. O. SUFFRON JOINS HAMMEL REORGANIZATION

Latest addition to the executive staff of Hammel Radiator Engineering Company, Los Angeles manufacturers of gas heating equipment, is Fay Suffron, former member of the research staff of American Gas Association. Mr. Suffron's appointment rounds out the development of Hammel organization which has recently been extended by the appointment of L. M. Hull as sales manager. It marks another step in carrying out the post-war expansion plans of the company.

Mr. Suffron joins the organization as its research engineer. Graduated in civil engineering from Oregon State College, he is well known in the gas industry. He formerly served with the Portland Gas and Coke Company of Portland, Oregon, and the Washington Gas and Electric Company at Tacoma. For ten years he was on the staff of the American Gas Association Testing Laboratories, first at Cleveland, Ohio, and later at Los Angeles where he acted as supervisor of the association's testing laboratory. Much of the domestic gas research now being reported by the laboratory was initiated under his supervision.

In 1942 the Hammel Radiator Engineering Company took over the plant and manufacturing business of the Hammel Radiator Corp., of which A. S. Martinson was vice-president and general manager.

MORE HOUSING

The San Francisco Housing Authority announces the selection of Architects—

Frederick H. Reimers and John C. Funk to design the 260 temporary family units planned for construction in San Francisco.

Newly Licensed Architects were announced by Frederick H. Reimers, secretary of the State Board of Architectural Examiners, as follows:

Royal Dana of Los Angeles; Harold Gimeno of Orange, California; Roy Alstan Lippincott of Los Angeles; Harold G. Smith of Chicago, Ill.; William Knowles of Oakland, Calif.; Fritz Kruger of San Francisco, Calif.; Edward McConnell Hicks of Berkeley, Calif.; Seawell Smith of Lafayette, Calif.

The president of the U. S. Chamber of Commerce, Mr. Eric A. Johnston, before the National Association of Home Owners, was at times epigrammatic and always forceful and logical. Here are some excerpts from his talk which, unfortunately is to long to repeat in full:

"A man can't be independent with a tin cup in his hand. States and communities can not carry on their proper responsibilities in our constitutional system if they look to the federal government to finance their activities.

"Experience has demonstrated that to obtain best performance in shorter time and at lower cost, public construction should be carried out through competitive contracts made with private construction enterprise and not through government hiring of labor or resorting to work-relief methods.

"Important as public works are for the construction industry, private work is far more important. We look to private initiative to furnish the largest part of employment. In an active economy, private construction is two thirds of the total construction volume. It also should be planned as far in advance as practicable.

"But there will be no new miracle house after the war. There will be instead a better house for the consumer's money, in a better location.

"There will be no miracle houses and there will be no miracle money."

A Tip from the Golden Gate!

IN our advertising on Watrous Flush Valves over the past few years we have presented the merits of these valves in a variety of ways. We have taken the valve apart and shown why the adjustable feature and the non-clogging by-pass are so important. We have shown you outstanding new buildings and huge projects such as Parkchester where 12,000 Watrous Flush Valves were installed after the most careful consideration of every factor.

Now we present yet another in our series of reports from Watrous users. This one we entitle "A Tip from the Golden Gate" because it comes from out where the Pacific begins.

The letter herewith tells its own story of Watrous Flush Valve performance over a 17 year period—another bit of evidence to add to the many thousands of similar instances where Watrous Valves were chosen and more than supported the judgment of the architects, engineers and plumbing contractors who selected them.

When you are called upon to specify or recommend, we feel you too can safely rely on this wealth of evidence and write or say "Watrous".

THE IMPERIAL BRASS MANUFACTURING CO.
1237 West Harrison Street, Chicago 7, Illinois

May 26, 1944

Imperial Brass Mfg. Co.
Chicago, Illinois

We installed approximately 225 Watrous Flush Valves in our 22 story office building at 111 Sutter St. in 1927. These valves have given excellent service and we have found that their water consumption is very low. Also they have been very economical from a maintenance standpoint and very simple to repair or adjust.

Management
One Eleven Sutter St.

One Eleven Sutter Building
San Francisco, Calif.
Architects:
Schultze & Weaver
Engineer:
Ralph E. Phillips
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The Case of PUBLIC HOUSING

(Excerpts from Presentation by J. W. Beard before American Institute of Architects, Northern California Chapter—meeting September 1, 1944.)

I shall make no attempt to cover as large a field as that included in the very able presentation just made by Mr. Laufenberg. I shall not discuss political philosophies nor the merits of public housing in national sense. I shall talk to you as the Manager of public housing in San Francisco and give you some facts which I believe will permit you to make your own evaluation of the benefits gained to the people of San Francisco from the public housing developments in our city.

Public housing under the U. S. Housing Act is now eight years old and the San Francisco Housing Authority is well into its seventh year of operation. This group is, I am informed, particularly interested in the low rent, peace time provisions of public housing. I should like, however, to note in passing that this Authority is currently engaged in a huge war time construction and management program for the United States Government. The Authority is now providing 2500 dormitory beds, nearly 6,000 family dwellings, 1,000 trailers and many other auxiliary structures, including child care centers, management buildings, community buildings, infirmary, cafeterias, and commercial centers, which will house in all in excess of 30,000 persons—the population of a good-sized city.

This operation is primarily a war time Federal undertaking in which the San Francisco Authority has limited powers as Federal agent. I do believe that this operation does demonstrate the solid value of local control in public housing construction and management. I know that all parties concerned, viz., the Federal Public Housing Authority, the United States Navy, the City of San Francisco as well as the tenants have repeatedly expressed the advantages of the present arrangement.

San Francisco's peace time program for low rent housing provided for the earmarking of $12,500,000 and the construction of 11 projects. Five were completed prior to the war and the balance of six permanent projects will be constructed immediately following the close of the war.

The first project to open in the western states, Holly Courts, received its first tenants more than four years ago. We are now in a position to review on a factual basis the accomplishments of those four years. Following is a brief resumé of the benefits of this program:

1. 1,741 low income families, totaling approximately 6,100 persons, have been rehoused from substandard living accommodations to decent homes.

2. In carrying out the "Equivalent Elimination Agreement" with the City of San Francisco, the local Health Department has eliminated a total of approximately 2,290 slums up to and including October, 1942, since which date no records have been maintained by that department due to cessation of peace time construction.

3. The Authority will pay to the City before the close of this year a total of approximately $134,000 as a payment in lieu of taxes on the five completed projects which formerly paid the city about $36,000 annually tax return. In addition the Authority is currently making payments in lieu of taxes to the City amounting to approximately $18,000 per year on its Chinatown and North Beach sites which are improved and income earning.

4. As of the close of business of this fiscal year, September 30, 1944, the Authority will have accumulated approximately $107,700 as reserve against collection and vacancy losses and for repairs, maintenance and replacements.

5. The Authority has met in full and is meeting in full all interest charges as well as amortization payments which will retire all outstanding bonds in less than 60 years.

6. At the expiration of this period the Housing Authority will own free of lien, land presently valued at $1,665,031.

7. There are no Federal funds invested in any of these permanent developments and no local funds with the exception of a contribution of some $72,000 made towards the acquisition of high cost Chinatown site and limited tax losses. As a matter of fact, the Housing Authority has made heavy payments of interest to the Federal Government prior to the issuance of temporary notes to private owners.

8. Many thousands of dollars are saved local relief agencies yearly by reason of the fact that relief families pay lower rents in housing developments than they did in the former slums in which they resided.

9. Even today, when preference for tenancy on turnover is given war worker families, half of the tenants still remain with low incomes. Should the projects be returned to the low rent status, these families would still be eligible to remain in residence. The large majority of these families are families of noncommissioned Army and Navy personnel; balance chiefly families receiving State orphan aid or small public or private pensions.

10. Superb accommodations have been provided to Heath Department, School Department, Recreation Department and Community Chest without rental.

11. The Housing Authority maintains and guarantees high level of maintenance of its developments and has been carrying on a limited degree of capital improvements, calculated to enhance the attractiveness of the developments and to reduce long time operating costs. The appearance of the landscaping and grounds is of a park-like quality, maintained at

(See Page 44)

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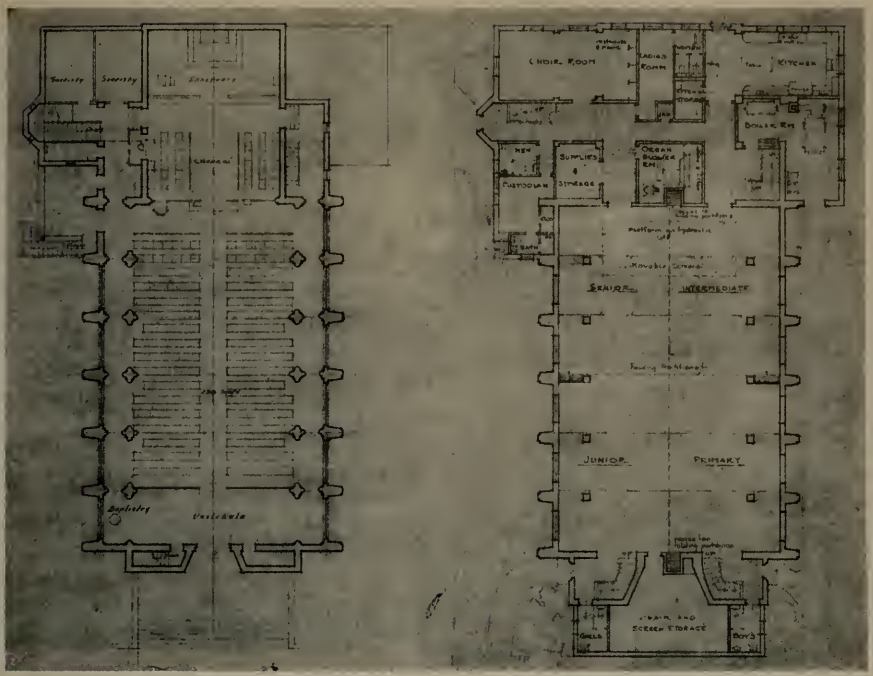
Ralph Owen, Del.

A COMMUNITY CHURCH WITH TRADITIONAL INSPIRATION

The strong Gothic influence increases the impressive call to worship in this small church to be built in Millbrae, California.

Eldridge T. Spencer and Wm. Clement Ambrose, Architects.



FIRST FLOOR PLAN **BASEMENT PLAN**

THE COMMUNITY CHURCH

MILLBRAE, CALIFORNIA

ELDRIDGE T. SPENCER & WM. CLEMENT AMBROSE, Architects

Architects have long contended that their office activity constitutes the best long-range forecast for the construction industry. Many weeks before the building permits and construction contracts indicate a trend, the architect has felt the quickening or the lagging pulse of the industry.

The architectural offices now report a slight easing from the heavy pressure incident to the planning of the nation's war plant. The reports from all sides, however, indicate that preliminary plans are underway and that "V" day will bring a new surge of construction activity.

The work in prospect includes almost every type of building. Much of the new work is independent of the demand created by the wide publicity on newly developed materials and processes. In California there are a million new people whose wants must be satisfied, whether they be for shelter, gastronomics, learning or spiritual expression. We are publishing in this issue preliminary sketches of a proposed church building which is in response to one of these needs. The sketches were prepared by Eldridge T. Spencer and Wm. Clement Ambrose, architects.

(See Page 37)

SOLAR HEATING FOR POST-WAR DWELLINGS FORESEEN AS RESULT OF FINDINGS IN YEARS SURVEY JUST COMPLETED

A revolutionary trend in architecture for private dwellings when building is resumed is foreseen in the official report on Solar heating recently made public by the Illinois Institute of Technology.

Intended as a scientific check-up on the advantages claimed for a house designed to utilize direct sun rays in winter but excluding them in summer, the Institute's findings after one year of testing a private dwelling in suburban Chicago verify many of the views held by some architects, notably George Fred Keck of Chicago.

Solar architecture requires, of course, unusually large windows to gain full advantage of sun-ray heat in winter, so that the growing trend to sun-exposed exterior walls of glass, when combined with extended roof lines or sun shields, represents practical, sound construction without creating a problem of excessive fuel costs.

Actually, the survey indicates, solar heating as an auxiliary not only can offset natural heat losses through large expanses of glass, but can be made to reduce fuel bills, even in climates having sub-zero weather.

SUN-RAY HEAT SHUTS OFF FURNACE

A striking example of this, an incident probably amazing to the average householder, is cited by one of the report's temperature charts, tracing the results of a sunny day in January when the outside temperature ranged from 5 degrees below to 17 degrees below zero. The sun-ray heat entering the living room automatically shut off the furnace at 8:30 a.m. and interior temperature during the day ranged above 85 degrees Fahrenheit, at times necessitating the opening of windows, despite the fact that the furnace was not in operation from 8:30 a.m. until 8:30 p.m.

Part of this excessive heating was due, as the report points out, to the fact that the floor area, heated by hot water pipes buried in the concrete floor, could not cool off rapidly and thus added to the over-all heat in the living room even though the furnace had been shut off.

While solar or sun-ray heating is regarded as an auxiliary source, in no way dependent upon any one type of heating method, it is interesting to note the possibilities offered in developing a floor construction that can lose heat rapidly when desirable.

OWNERS ENTHUSIASTIC ABOUT SOLAR HEATING

In commenting upon the reactions of the owners of the dwellings after living in the Keck-designed solar house for a period of months, the report says in part:

"The owners (Mr. and Mrs. Hugh C. Duncan, Homewood, Ill.) constantly supplemented the author's personal observations as to the general comfort conditions within the house. All were in complete agreement that the reaction to increased sunlight is a pleasant one."

The Duncans "became enthusiastic proponents of solar auxiliary heating by means of large window areas."

Editor's Note—This full-year test of an occupied house designed for solar auxiliary heating was made possible by Libbey-Owens-Ford Glass Company of Toledo, Ohio, and the collaboration afforded by the owners of the house, Mr. and Mrs. Hugh D. Duncan, and the architect George Fred Keck

They "found the basic design of the house and the use of the large window areas eminently satisfactory. They enjoyed the extra 'free' natural illumination those windows afforded, the pleasurable sense of basking in warm sunlight on cold winter days, and the sense of spaciousness attributable to the broad outlook through the entire south facade of the house."

While natural illumination was not recorded in detail, periodic observations showed that high levels of illumination prevailed throughout the house in daytime, due to the size and disposition of the windows. At no time was artificial light required in any part of the house, no matter how remote from the windows, during the daylight hours.

Howard M. Sloan, Chicago builder, who constructed Architect Keck's first original solar-designed house in suburban Glenview, and then built and sold many more similar houses before private construction was stopped by the war, made these observations:

"Frankly, after building so many of them and after hearing the reactions of those who had lived in them over a period of time, I decided that I, too, wanted such a house. Insofar as the increased 'free' natural illumination is concerned, I can verify that. As a matter of fact, it has been the experience of my family and of my 'solar neighbors' that the larger window areas, by providing so much added interior illumination, eliminate glare—so much so that my mother, who is 68 years old, doesn't wear her glasses as much as she used to, and in sewing my wife actually has used black thread on black cloth without eye strain."

BUILDER-OWNER REDUCES FUEL BILLS

Mr. Sloan indicated that his winter fuel bills were considerably less than had been estimated for him by the Public Service Company of Illinois. Explaining that he had only figured heat loss through windows and had no previous record of figuring heat input by Solar means, the Public Service company representative estimated Mr. Sloan's fuel bill from Sept. 15, 1942, to June 15, 1943, would be $220. (On the basis of figures for 1,000 dwellings, the company's estimates average 90 per cent correct.) Mr. Sloan's actual monthly bills from the company, from Sept. 18, 1942, to June 15, 1943, totaled only $136, a saving of $84 or 40 per cent for one heating season.

"While I did not build the Duncan house, I am familiar with its construction," Mr. Sloan said. "The large windows on the south side are of Thermopane, a multiple glazed insulating glass unit incorporating the insulating principle of storm sash, except that the edges of the glass entrapping the dehydrated air have a metal-to-glass, permanent seal. This makes it possible to glaze the multiple panes of glass into one sash.

"Thermopane in double glazed form was used in the Duncan house, but in my own home, built a year later, I used triple Thermopane. I know the unit with two air spaces is even better for stopping heat losses, and that it was responsible for a large part of the savings in fuel I have enjoyed.

"However, I am frank to say that even if I could not realize any savings in fuel, I still would prefer the Solar type of house because of the many advantages of having such extensive walls of glass. Many people come to my house just to investigate the ideas incorporated into it, and they leave in an enthusiastic frame of mind.

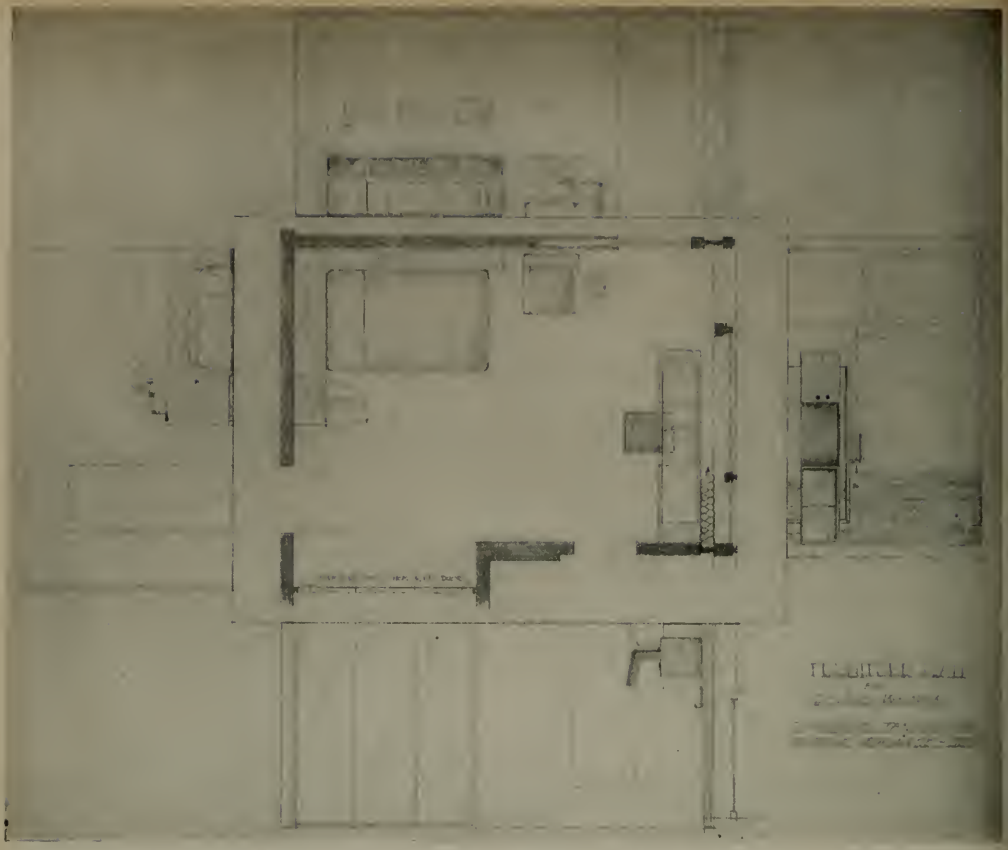
"Those who are there in spring or summer months are delighted with the views through the transparent walls, and those who have been there on a winter's day or night have been treated to a rare sight—a ring-side seat at a blizzard, but in warm comfort."

The Duncan house solar survey was conducted by Dean J. C. Peebles and William C. Knopf, Jr., of the Illinois Institute of Technology over a 365-day period.

The Duncan residence was utilized because it represents the so-called "popular price" bracket of $10,000 or less. (The dwelling was built for $7,500.)

Being a form of modern design, the house is a one-story frame structure with single slope, flat roofs over the main body and wings. These roofs extend along the south (and principal) facade of the house to form wide eaves carefully related to the lattitude and the position of the windows so that they fully shade the

(See Page 38)



A ROOM DESIGNED IN COLLABORATION WITH THE LATE CLARENCE TANTAU, ARCHITECT
Furniture plan for a man's bedroom in a modern house. The thought was to make a functional room simplified to the n'th degree, relying on the quality of beautiful wood, and color and texture of materials for interest.

Collaboration Between Architect and Decorator

By HAROLD WALLACE, A.I.D.

The principles involved in modern architectural planning today, more than ever before, make for closer collaboration between architect and decorator.

Most of the continental European and English work of the past which has been such a source of inspiration to the eclectic designers of this country owes its success to the fact that it was planned by an organization of specialists who worked together and, in many cases, by one man as architect-decorator.

In contemporary work, then, where the architectural elements and furniture have become practically an entity, this principal of practice should necessarily hold true. I, therefore, believe that as soon as the floor plans are established a decorator should be selected to work hand in hand with the architect and owner.

For instance, I have found, from experience, that proper lighting cannot be designed until the furniture plan is established throughout the house. The type of curtains, blinds or other methods of light-control should be determined in order to provide ideal conditions for their

installations. Also that the position of doors and windows are usually influenced by the furniture plan.

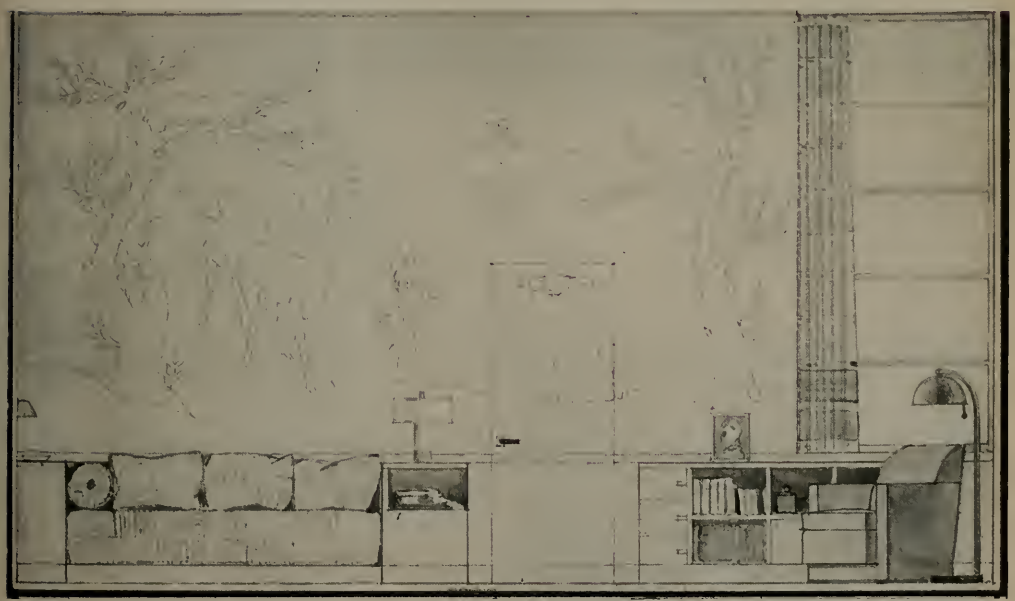
One of the best examples of this lack of procedure which has come to my attention is the living room in a thirty thousand dollar house which is now being re-planned to gain wall space and more workable windows.

Most of the wall space, other than the fire place end of the room, is practically all taken up by windows and doors. Not one space is there large enough for a 4′ — 0″ radio and phonograph cabinet which the owner has always wanted to have in this room. The logical wall for this cabinet is entirely taken up by three French windows which look out onto the street. These windows were, no doubt, considered essential to the exterior design.

The center window is now being closed up which will create an eight-foot wall space, an ideal background for furniture and greatly add to the appearance of the room.

There are two types of windows in this room, double-hung and casements opening both in and out as well as two different heights. This condition does not lend itself to a practical window treatment.

The architect's new plan now shows all windows opening out or fixed which makes the placing and operation of curtains and blinds a simple matter.



ROOM CREATED BY DECORATOR AND SCULPTOR

Design for a living room, completely built of wood, in which most of the furniture, made of the same wood, forms a wainscoting around the entire room. The Decoration was designed by Jacques Schnier, the technique being flat, incised carving.

Buttresses carry conviction as well as support in adobe construction. They look as well as act the part.

The scale and size of the adobe bricks result in a texture and reveals that add to the feeling of sturdiness.

The "adobe" on the hill among the oaks is contrary to the early day conception which was little more than one of a hut made of mud bricks in the plains.

ADOBE DWELLINGS

A Modern and Scientific Use of a Very Old Material

When we hear or read of an adobe house, we unthinkingly conjure up an image of a three- or four-room place, roofed or otherwise, where Mexican peons live in an open plain of unproductive land, surrounded by nothing. Usually, if we go that far with our thinking, we picture a drab, unplanned little building of a dull, muddy color that is devoid of any attraction other than a sort of insouciant simplicity. A mangy dog curled up in the sunlight or scratching rhythmically with a few chickens at the door step might add a touch of realism to the picture, but nothing else. That about covers the picture of the 'dobe that was built by the early Mexican settlers in the hot, arid plains of California. It was about all that could be expected from the people who built them and the materials they had. But the 'dobes did have advantages. They were warm in winter and cool in summer.

Before long later residents took up the idea of building of adobe. They made bricks from the surrounding land, wherever they were building on adobe ground, and set them in adobe mortar. The walls were either whitewashed or left natural so that after a rain or two they were all the same uninviting mud color. It was not until about twenty years ago that real, scientific research was undertaken along thorough and approved lines, and the laboratories finally proved that various forms of adobe containing soils could be used with even greater success than the straight adobe of the type used in the early days. This also resulted in bricks of a variety of shades of brown, even to a very attractive shade of light tan. But the public seemed still to labor under the impression that a 'dobe house must be built upon the plains. This misconception, along with others, was thoroughly disproved by Mr. A. S. Kalenborn, who recently built the house shown in the photographs on a rocky hill surrounded by oaks in San Carlos, California.

It is difficult to refrain from an account of the trials and vicissitudes through which Mr. Kalenborn went, for he built it for himself for his own dwelling. In the first place the ground did not look like the old "orthodox" adobe, so he sent a sample to a laboratory and eventually received a formula from them telling him just how to treat the soil to get the best form of adobe bricks and the hardest. From there on it was make bricks and build a house. The adobe bricks Mr. Kalenborn made and used were four inches by eight inches by sixteen inches having a cubic volume eight times that of a burned brick. They weighed 30 pounds and they cost him $100.00 per thousand, including straw and other reinforcement called for by the formula. To build a burned brick wall of the same volume as one thousand 'dobes would cost at the present price, $160.00. Mr. Kalenborn gives the following estimates of cost:

An eight-inch thick wall will cost 35c per square foot.

A twelve-inch thick wall will cost 50c per square foot.

A sixteen-inch thick wall will cost 67c per square foot.

He further states that the final cost of his house was about what the house would have cost in frame plus the difference in cost of his 'dobe walls over whatever frame wall he might have used. One surprising fact is that the 'dobe bricks were immersed in water for two weeks without showing signs of deterioration; the edges were still firm and hard and the brick was still dry at the center.

(Continued on Page 34)

Modernization of the Delger Building called for the removal of bay windows, unadorned roof line and new exterior without making alterations of the structural elements.

DOWNTOWN OAKLAND MODERNIZED

By IRVING H. KAHN, President

Downtown Property Owners Association, Inc., Oakland, Calif.

Downtown Oakland is less concerned with war-time restrictions on building modernizations and new construction than it might have been, had it not been for an aggressive improvement program conducted since 1931 which is now paying rich dividends.

When the freezing order was placed into effect, Downtown Oakland already had a new face of attractive stores in modern buildings, busy streets crowded with buying shoppers. There is virtually not a single store vacancy in the entire area. Here is located four out of Oakland's five department stores as well as forty-four national retail selling organizations which employ exacting, scientific methods in choosing store locations.

The rehabilitation of this area had its beginning in 1931, when the future of this long-established shopping district was seriously threatened by decentralization. Store tenants were leaving obsolete, unattractive buildings, volume of retail business was decreasing, street traffic was badly congested, and high taxes discouraged new property owners. This situation was a ripe field for aggressive real estate promoters who offered what they termed a new business center a few blocks away, to tenants in outmoded buildings.

The result was the formation of the Downtown Property Owners Association, composed of business leaders and property owners in the downtown area. A definite program was outlined for district improvement, including building modernization, reduction of traffic congestion, off-street parking facilities and tax adjustments. A war chest of $150,000 was raised and a manager engaged to put the program into effect.

Now, thirteen years later, thirty-nine major buildings and stores have been modernized and streamlined, both interiors and exteriors. Cupolas, bay windows and gingerbread have been replaced by tile, glass and chromium in simple, modern designs. Countless smaller stores have been remodeled in keeping with the trend.

Off-street parking was provided by the organization of the Downtown Merchants Parking Association which now operates six conveniently located parking stations. Over a million cars annually are provided with free

Simplification of lines and a tile exterior made the old Masonic Temple Building shown below into a modern store which attracted a valued tenant and prevented further decentralization. The cost was $20,000.

parking privileges with the result that shoppers are further encouraged to come Downtown because of the parking conveniences. The streets themselves have been widened, flows of traffic have been studied and street congestion reduced generally by the intelligent program of city traffic engineers.

Other communities have learned that long-established central business districts can be cured of the blight. While modernization programs at present are necessarily limited, now is the time to plan. Two major expansions have already been announced for Downtown Oakland as soon as manpower and materials are available. One, the J. C. Penney Co., will include the expansion of street frontage and interior floor space as well as complete modernization of the exterior. The other is Kahn's, one of the leading department stores, which for more than a year has been planning a million dollar expansion to include escalators, new elevators, increased street frontage by adding 100' x 100' ground floor space, and enlargement of interior floor space. The fact that this establishment is renewing its lease for twenty-one years is an indication of how well the central shopping district has come back, and it constitutes one more peg in keeping it nailed down in its present location.

Decorotive tile veneer brought the Abrahamson Building up to date at a cost of $14,250. Recently, this property was purchased by an eastern concern for the location of its first store on the Pacific Coast.

ADOBE DWELLINGS

(Continued from Page 31)

These costs will be materially reduced if a method of manufacture at a plant is ever devised, coupled with efficient distribution. As a result, we may look forward to more 'dobe houses on hills and elsewhere. With the effect of sturdiness, permanence and deep reveal, and the pleasing color of the Kalenborn house they should add materially to the landscape. With the fireproof qualities and the natural insulation from cold and heat they should add comfort of mind and body to the owner.

"DESIGN CONDITIONS" IMPORTANT FACTOR IN VENTILATION ENGINEERING

By CARL R. GELERT*

The engineering of ventilation problems has come a long way during the past 50 years. We could say that scientific research has brought it to a fairly comprehensible status with recognized formulae and tables of coefficients. Literally, the field of ventilation is emerging from the "dark ages" of blind faith and guesswork. Let us not forget, however, that much of the impetus has been the result of public acceptance. Education in our public schools, colleges, and public agencies such as the U. S. Public Health Service, evolved our line of thought into a consciousness that the condition of the air we breathe is as important as the condition of the food we eat. Not only that, the efficiency with which we do our daily job, depends very much on the properties of the air such as temperature, humidity, cleanliness, and circulation.

While we, as persons, are greatly affected by the air, let us remember also that materials are in this category. This is especially true of commodities such as ferrous metals, textiles, chemicals, agricultural products, livestock, and so on. Today, some manufacturing processes have reached a critical point requiring air conditioning in all its phases to bring uniformity and close tolerances. Under these circumstances ventilation is a highly important factor. Today, there are essentially two methods with which ventilation can be accomplished—forced air and gravity. Let us consider the latter in this article, and ascertain how to get it and be sure without a question of doubt, that we get the ventilation which was needed. That means that the design conditions which were stated are true to the conditions encountered; that the calculations are accurate and in accordance with the best accepted practice; that the equipment selected was installed properly; and, last but not least, that the equipment purchased will definitely perform the task to which it is put.

(See Page 40)

* Ventilating engineer and Southern California representative of the G. B. Breidert Company.

A shopper pauses to linger at the hearth, a pause that often brings an extra purchase.

TWO YELLAND FIREPLACES
Marble, mirrors, shelving and ceiling are all one compositian.

BOOK REVIEWS

PATRICK GEDDES, *Maker of the Future*

With an Introduction by LEWIS MUMFORD
The Univ. of No. Carolina Press, 1944. $5.00

By MICHAEL GOODMAN

To those architects and members of professions in related fields who are interested in the history of ideas and personalities behind them, this book is most timely, both as to publication and subject. In the present welter of discussion on planning as means of achievement of social betterment it shall be of benefit to know for clearer orientation how this philosophy spread and what sources affected this country as well as much of the rest of the world.

Since planning is a total activity, it took a total personality of Patrick Geddes to propose it, develop it and carry it to the threshold of public acceptance. The author, Mr. Philip Boardman, wrote from personal knowledge and dedicated the book to the memory of his friend, Anders Wyller, a Norwegian patriot who had given his life for his homeland and made Norway an inspiration to the United Nations. Patrick Geddes, who died in 1932, would have approved this dedication, for he, the trail-blazer, a master of the many complex elements that make up the art and science of regional planning, preached to abolish slums as well as battlefields.

"The hour has come," said Geddes, "for the great transition from a machine and money economy towards one of life, personality and citizenship—from the paleotechnic era of mingled open war and latent war (called peace) to the neo-technic and bio-technic age of genuine constructive, militant peace."

Geddes was not a pacifist, he preached eradication of Prussianism and other evils at the base of the disturbance of our "peacedom."

The truant, quarter-time professor of Botany, who, through his lifetime applied biological ideas and methods to society, was born in Scotland in 1854. He was intensely a man of his time. He was an extraordinary botanist who would not stay in his own field. He was referred to as a jack-of-all-subjects and master of city planning. His ideological adversaries, besides calling him a crackpot accused him of academic trespass and intellectual burglary.

Through an outpouring of brilliant ideas as his legitimate cranial offsprings he was the great, though unofficial, leavening force in the early days of British town-planning. The point about Geddes was that he lived in the present and planned for the future. Thus, his most original excursions into the past served a definite, forward-looking purpose. He said of himself that, "Since a biologist's outlook tends to rise into the human and social one, I have sought to improve material environment, the hygiene of the city, the housing of its workers and its students." His disciples were many. Here in the United States we have the illustrious one, Lewis Mumford.

Patrick Geddes used the 1900 Paris Exposition as a vast laboratory in which to work out his sociological ideas and his system of unifying all knowledge and at the same time as an illustrated book for his lectures to visitors. He was a bond which many influential and illustrious people of Europe and America had in common; he was their intellectual denominator. Patrick Geddes, the modern Leonardo, as he is mentioned in the book, had foreseen more, according to his friends, and started more creative enterprises than any man of his epoch. Professor Patrick Abercrombie says that his ideas both before and since then were so widely scattered that now all leaders of the town planning movement base their practice on his theory. For he showed how to build town planning on a sure foundation—social, geographical, historical, industrial. To his conventional university colleagues he may have been a menace to the isolation of specialized fields of learning, but to the larger world of architects, geographers, municipal engineers, councillors and urbanists in general he was a prophet and fountainhead of ideas.

A look, say, at pp. 246-247 will give the prototype of the present-day planning survey language. He popularized in his itinerant exhibitions the comparative technique and planning representation to illustrate his philosophy. The "before-and-after" views of an improved city were his forte. Those readers of Mumford's books who are floored by such current words as geotechnic or paleolitic should think of the London's intellectuals who were flustered at the turn of the century by such coinages as "Hebrasmorphic thought," "Eupolitogenics," etc.

In short, Geddes taught, "Make first a well-balanced civic survey, then set about drawing plans and passing ordinances." It must be said that every visitor to Geddes' city improvement exhibits went away a potential carrier of the germs of civic and regional survey. The city of Edinburgh having refused him as Regius Professor of Botany welcomed him later, officially and popularly as a town-planner after viewing his itinerant exhibition. Upon invitation of Lord Aberdeen his method and influence quelled the critical political situation in Dublin just at the outbreak of World War I. The city plan for Dublin's improvement, a chance of his lifetime, never materialized as originally proposed. Another of his magnificent failures was the project for the beautification and improvement of Andrew Carnegie's birthtown, Dunfermline. The famous volume of the report, "City Development," produced as result, made Geddes famous "among the rapidly multiplying tribe of municipal planners, civic architects, and the like."

A frequent visitor to this country, he greatly admired the American kitchen and its resulting reflection on the social condition of the woman in the U. S A.

(Continued from Page 25)

Like many other communities, Millbrae, in San Mateo County, California, has felt the stimulus of war and the effects of having a great air base established at its gates. The members of the Community Church at Millbrae are alive to their responsibility for an adequate place of worship and religious education. They are also aware of an upsurge of the religious spirit coincident with the war and of the fact that the present high industrial activity creates a favorable opportunity for the accumulation of funds for financing their future activities. They have acquired a suitable site and the plans for the church building are well under way.

The problem of combining traditional forms of church design to modern materials and methods of construction poses a problem for any architect. It is, of course, not difficult to reproduce the old forms with cast stone, clever form work, etc. It would seem, however, that the task of expressing the high devotional spirit of the early churches, and of satisfying the modern demand for the employment of only the simplest structural forms stripped of all "useless" play of light and shade is a problem which is hardly yet solved.

MORE YELLAND FIREPLACES
Accented by a recess, mantel and fireplace form a definite feature at the end of this living room.

Beyond a richness of foreground the corner window and fireplace keynote the interest.

SOLAR HEATING FOR POST WAR DWELLINGS

(Continued from Page 27)

windows during the summer months, when the altitude of the sun is high, and permitted the low-hanging winter sun to penetrate deeply into the principal rooms.

(From the standpoint of health, the report made a thought-provoking observation in pointing out that Mr. and Mrs. Duncan had mentioned several times that they had both been susceptible to colds before living in the Solar house, but had not suffered any colds during the test year. "These comments are reported as given," the report stated, "but no scientific support for them can be deducted from the instrument records.")

SUMMER SUN IS KEPT OUT OF HOUSE

To quote further from the report:

"Since this auxiliary heat is wanted only in winter, such buildings are commonly designed with projecting eaves or fixed shields over the windows that are related in depth to the latitude and orientation of the building.

"The winter sun at low altitude can penetrate the windows beneath these shades but the high altitude of the summer sun brings the shields into play and excludes the sun from the window surfaces.

"The opportunity to study a house designed in this manner and further equipped with radiant heating through floor panels, appeared to present a chance to measure the practical effect of solar auxiliary heating in a well designed dwelling. Unfortunately, a number of critical and unexpected variables were discovered after the program was established. These had the effect of preventing the reduction of observed conditions to quantitative values.

(In explanation of this point the report notes that the sun heat, combined with a heating system which could not shut off promptly, produced excessive temperatures and caused the owners to open windows. Furthermore, labor shortages prevented the caulking of doors and window frames as planned by the owners and architect and therefore allowed the infiltration of excessive amounts of cold air. This resulted in heat losses that couldn't be measured, and, further, destroyed the value of measurements of the heat provided by the sun.)

"Nevertheless," the report continues, "the study may prove interesting and perhaps fruitful to those concerned with solar auxiliary heating, mechanical heating by radiant methods and the inter-relationships of the two methods.

"The combination of radiant heating through floors having a high heat capacity and auxiliary heating by solar radiation proved unsatisfactory to the extent that possible and expected fuel savings due to solar heating were not fully realized, and indoor temperatures rose above the comfort level.

"A house of similar design equipped with a heating system better adapted to fully utilize the available solar heat input should show a substantially lower heating cost than that recorded in this test.

"The preponderance of evidence indicates that the solar heat input in the test house offset most, and probably all, of the heat losses through the **extra** window areas and kept the total heating cost at a reasonably low figure in spite of the loss of heat through excessive infiltration and frequently opened windows and doors."

A YELLAND FIREPLACE
Brick, plaster and timber give vitality and character to the room.

PRODUCERS' COUNCIL PAGE

Northern California Chapter

The National Organization of Manufacturers of Quality Building Materials and Equipment Affiliated with the AMERICAN INSTITUTE OF ARCHITECTS

J. WILSON (Jack) PEELLE

Jack Peelle is another young man making his presence felt in Producers' Council Chapter affairs these days, serving with Norman Brown, now Acting Chairman of the Membership and Attendance Committee.

Jack started to reverse the usual Westward trend in the lives of those members into which we've pried by being born in Indianapolis and moving East to New York. His schools were Phillips Academy at Andover, Mass., and the State Institute of Applied Agriculture, Farmingdale, L. I. No fooling, he was going to be a farmer. He explains, however, that he succumbed to the "lure" of the door business. Bob Telfer, pinch-hitting for Jack one day, covered that intriguing subject thoroughly enough. Whether Jack found what he was looking for, doors started opening across the country nine years ago until he arrived in San Francisco, last year, to become District Manager for The Peelle Company, The Richmond Fireproof Door Company, and Dahlstrom Metallic Door Company.

And when the day's work is done, Jack heads for the best door of all, down in San Mateo, where Daddy is greeted by a charming wife and three children.

His present, rather enforced hobby, is trying to raise a lawn in good old California 'dobe. He plays golf when possible, and his post-war plan calls for some boating.

Closer Collaboration between local Chapters of the A.I.A. and the Producers' Council is the aim of a new set-up of Joint Technical Committees agreed upon by Mr. Ray Ashton, President of the A.I.A., and Douglas Whitlock, President of the Producers' Council, Inc., which replaces the present Architect Liaison officer system.

Each Chapter appoints a "Technical Information Committee of three to collaborate with its opposite number in the local A.I.A. Chapter, which is being urged by President Ashton to set up a similar committee. The chairmen of each committee serve as co-chairmen in the combined sessions known as the "Joint A.I.A. - Producers' Council Technical Committee."

Further announcement will be made of organization when it is completed.

SUCH IS LIFE—

We Can Assure you that the above situation will not occur. Manufacturers of brick and structural tile, concrete blocks, glass blocks and window sash have adopted Modular Planning as the basis for their post-war products.

"I'm sorry, Mr. Dunkpuss, but the bricklayers are on the outs with the window-sash people!"

Masonry Industry Committee for the Bay Area representing the manufacturers of brick and structural tile, concrete masonry units and glass blocks, masonry contractors and the Unions, has passed a resolution favoring the adoption of Modular Planning and Dimensional Coordination in post-war construction.

DESIGNS CONDITIONS IMPORTANT FACTOR IN VENTILATION ENGINEERING

(Continued from Page 35)

"Design Conditions" is a term well known to ventilating engineers. It simply states a certain set of average conditions which will be incurred, some favorable and some unfavorable to the ventilation contemplated. These factors are: the temperature differential between inside and outside; the stack effect at a given height from intake to outlet; the resistance to the movement of air; the effect of exterior winds and the number of air changes desired. Since we are considering only gravity ventilators of the roof type in this article, in which nature plays an important part, it is paramount to specify true natural conditions encountered. The weather bureau will give you the average conditions in your community. For instance, in the Los Angeles area, varying conditions prevail in different sections of the city. Near the ocean, winds averaging 8 to 10 miles per hour prevail, while in the heart of the downtown section, an actual average of 6 miles per hour exists. Then again, in the Burbank area, winds average 7 to 8 miles per hour, while at Pacadena, they have diminished to less than 5 miles per hour. All this exists within a radius of less than 15 miles. You simply cannot have successful gravity ventilation without giving careful attention to the natural conditions which surround you. The accurate weather conditions should be incorporated into the design conditions of the specifications. Furthermore, be sure to ascertain that a negative pressure does not exist in the space in which gravity ventilation is planned. Otherwise, gravity ventilation will not work. The calculations for ventilation problems are not excessive, but the principles must be thoroughly understood. Your very best insurance against failure of operation is to secure the services of a competent and reputable ventilation engineer. Many architects are competent, and some have engineers in their employment. Some sheet metal establishments are capable, but for the most part, they are essentially engaged in the installation and the erection of equipment. Today is the era of specialization. You certainly wouldn't obtain the services of a chiropodist when a surgical operation on the brain was needed. Again, secure the services of a competent ventilating engineer.

The selection of equipment in roof ventilators has been a most difficult problem. While most manufacturers have unquestionable integrity and their published capacities on ventilators would seem reasonable, nevertheless, lack of uniformity in these tests, or in some cases, just plain guessing does not assure you that their product will perform as advertised. What can you as an owner or your engineer demand as protection from failure of performance? I believe that the answer is in certified tests made by a disinterested and reputable laboratory. In the West, there are numerous institutions and technical colleges such as California Institute of Technology at Pasadena. In the East, Pittsburgh Testing Laboratories and Massachusetts Institute of Technology are excellent examples. Perhaps the American Society of Heating and Ventilating Engineers could set up a standard test specification regarding sizes and proportions of ventilators to assure uniform comparisons. The tests, preferably in wind tunnels, should be so conducted that the readings will show averages **regardless of wind direction.** The latter is most important. Winds have a peculiar habit of shifting from one direction to another—frequently. The standard practice in the past has been to test gravity ventilators in horizontal winds or perhaps at their most favorable angle. Obviously, tests such as these are of little value and produce misleading capacities. The net result to you is a failure in performance.

To sum up the previous paragraphs, here are the "musts" if you want to be assured that your problem in ventilation will be solved properly and successfully:

1. Investigate the true weather conditions in your immediate community from the weather bureau. This information is free.
2. Secure the assistance of a competent engineer to solve your problem, select your equipment and supervise the installation.
3. Buy only roof ventilators from a reputable manufacturer who can offer you certified ratings of performance.

ARCHITECT AND ENGINEER

Estimator's Guide

Giving Cost of Building Materials, Etc.

AMOUNTS GIVEN ARE FIGURING PRICES AND ARE MADE UP FROM AVERAGE QUOTATIONS FURNISHED BY MATERIAL HOUSES TO SAN FRANCISCO CONTRACTORS. 2½% SALES TAX ON ALL MATERIALS BUT NOT LABOR

All prices and wages quoted are for San Francisco and the Bay District. There may be slight fluctuation of prices in the interior and southern part of the state. Freight cartage, at least, must be added in figuring country work.

BONDS—Performance—50% of contract.

Labor and materials—50% of contract.

BRICKWORK—

Common Brick—Per 1M laid—$50.00 to $60.00 (according to class of work).

Face Brick—Per 1M laid—$120 to $150 (according to class of work.)

Brick Steps—$1.60 per lin. ft.

Brick Veneer on Frame Bldg.—Approx. $1.30 per sq. ft.

Common Brick—$19.00 per M, truckload lots, f.o.b. job.

$19.00 per M, less than truckload, plus cartage.

Face Brick—$40 to $80 per M, truckload lots, delivered.

Cartage—Approx. $4.00 per M.

BUILDING PAPER—

1 ply per 1000 ft. roll	$3.50
2 ply per 1000 ft. roll	5.00
3 ply per 1000 ft. roll	6.25
Brownskin, Standard, 500 ft. roll	5.00
Sisalkraft, 500 ft. roll	5.00
Sash cord com. No. 7	$1.20 per 100 ft.
Sash cord com. No. 8	1.50 per 100 ft.
Sash cord spot No. 7	1.90 per 100 ft.
Sash cord spot No. 8	2.25 per 100 ft.

Sash weights, cast iron, $50.00 ton.
Nails, $3.42 base.
Sash weights, $45.00 per ton.

CONCRETE AGGREGATES—

The following prices net to Contractors unless otherwise shown.

Gravel, all sizes—
$1.95 per ton at Bunker; delivered $2.50

	Bunker	Del'd
Top Sand	$1.90	$2.50
Concrete Mix	1.90	2.45
Crushed Rock, ¼" to ¾"	1.90	2.50
Crushed Rock, ¾" to 1½"	1.90	2.50
Roofing Gravel	2.25	2.80
River Sand	2.00	2.45

Sand—

River Sand	2.00	2.45
Lapis (Nos. 2 & 4)	2.85	3.15
Olympia (Nos. 1 & 2)	2.85	3.10

Del Monte White ..... 84c per sack

Cement—

Common (all brands, paper sacks), carload lots, $2.42 per bbl. f.o.b. car; delivered $2.72.

Cash discount on carload lots, 10c a bbl., 10th Prox.; less than carload lots $3.20 per bbl. f.o.b. warehouse or delivered.

Cash discount 2% on L.C.L.

Atlas White, Calaveras White, Medusa White } 1 to 100 sacks, $2.50 sack warehouse or del.; $7.65 bbl. carload lots.

Forms, Labors average $200.00 per M.

Average cost of concrete in place, exclusive of forms, 35c per cu. ft.; $10 cu. yd.; with forms, 60c.

4-inch concrete basement floor ..... 30c per sq. ft.

Rat-proofing 7½c

Concrete Steps ..... $1.25 per lin. ft.

DAMPPROOFING and Waterproofing—

Two-coat work, $3.50 per square.

Membrane waterproofing—4 layers of saturated felt, $7.00 per square.

Hot coating work, $2.50 per square.

Medusa Waterproofing, $3.50 per lb. San Francisco Warehouse.

Tricocel waterproofing.
(See representative.)

ELECTRIC WIRING—$12 to $15 per outlet for conduit work (including switches).

Knob and tube average $3.00 per outlet. (Available only for priority work.)

ELEVATORS—

Prices vary according to capacity, speed and type. Consult elevator companies. Average cost of installing a slow speed automatic passenger elevator in small four story apartment building, including entrance doors, about $6500.00.

EXCAVATION—

Sand, 60 cents; clay or shale $1 per yard. Teams, $12.00 per day.

Trucks, $22 to $27.50 per day.

Above figures are an average without water. Steam shovel work in large quantities, less; hard material, such as rock, will run considerably more.

FIRE ESCAPES—

Ten-foot galvanized iron balcony, with stairs, $150 installed on new buildings; $160 on old buildings.

FLOORS—

Composition Floor, such as Magnesita, 33c to 50c per square.

Linoflor—2 geges—$1.25 to $2.75 per sq. yd.

Mastapay—90c to $1.50 per sq. yd.

Battleship Linoleum—available to Army and Navy only—⅛"—$1.75 sq. yd. 3/16"—$2.00 sq. yd.

Terazzo Floors—50c to 70c per square.

Terazzo Steps—$1.75 per lin. ft.

Mastic Wear Coat—according to type—20c to 35c.

Hardwood Flooring—
Standard Mill grades not available.
Victory Oak—T & G

25/32 x 2¼"	$143.25 per M. plus Cartage
½ x 2"	122.00 per M. plus Cartage
½ x 1½"	113.50 per M. plus Cartage

Prefinished Standard & Better Oak Flooring

25/32 x 3¼"	$180.00 per M. plus Cartage
½ x 2½"	160.50 per M. plus Cartage

Maple Flooring

25/32" T & G Clear	$160.50 per M. plus Ctg.
2nd	153.50 per M. plus Ctg.
3rd	131.25 per M. plus Ctg.

Floor Layers' Wage, $1.50 per hr.

GLASS—

Single Strength Window Glass	20c per □ ft
Double Strength Window Glass	30c per □ ft.
Plate Glass, under 75 sq. ft.	$1.00 per □ ft.
Polished Wire Plate Glass	1.40 per □ ft.
Rgh. Wire Glass	.34 per □ ft.
Obscure Glass	.27 per □ ft.

Glazing of above is additional.
Glass Blocks ..... $2.50 per □ ft. set in place

HEATING—

Average, $1.90 per sq. ft. of radiation, according to conditions.

Warm air (gravity) average $48 per register.

Forced air, average $68 per register.

IRON—Cost of ornamental iron, cast iron, etc., depends on designs.

LUMBER — All lumber at O.P.A. ceiling prices—

No. 1 Common	$49.00 per M
No. 2 Common	47.75 per M
Select O. P. Common	52.75 per M

Flooring—

	Delvd.
V.G.-D.F. B & Btr. 1 x 4 T & G Flooring	$80.00
C 1 x 4 T & G Flooring	75.00
D 1 x 4 T & G Flooring	65.00
D.F.-S.G. B & Btr. 1 x 4 T & G Flooring	61.00
C 1 x 4 T & G Flooring	59.00
D 1 x 4 T & G Flooring	54.00
Rwd. Plastic—"A" grade, medium dry	82.00
"B" grade, medium dry	78.50

Plywood—

	Under $200	Over $200
"Plyscord"—3/8"	$49.50	$47.55
"Plywall"—1/4"	45.15	43.30
3 ply—2/s—1/4"	48.55	46.60
"Plyform"—5/8"—		
Unoiled	126.50	121.45
Oiled	127.90	122.75

Above prices delivered if quantity is sufficient to warrant delivery.

Shingles (Rwd. not available)—

Red Cedar No. 1—$6.75 per square; No. 2, $5.75; No. 3, $4.45.
Average cost to lay shingles, $3.00 per square.
Cedar Shakes—Tapered: 1/2" to 3/4" x 25"—$8.95 per square.
Resawn: 3/4" to 1 1/4" x 25"—$10.65 per square.
Resawn: 3/4" to 1 1/4" x 25"—$10.65 per square.
Average cost to lay shakes, $4.00 per square.

MILLWORK—Standard.

O. P. $100 per 1000. R. W. rustic $100.00 per 1000 (delivered).
Double hung box window frames, average with trim $6.50 and up, each.
Complete door unit, $10.00.
Screen doors, $3.50 each.
Patent screen windows, 25c a sq. ft.
Cases for kitchen pantries seven ft. high, per lineal ft., $9.00 each.
Dining room cases, $9.00 per lineal foot. Rough and finish about 80c per sq. ft.
Labor—Rough carpentry, warehouse heavy framing (average), $40.00 per M.
For smaller work average, $40.00 to $55.00 per 1000.

MARBLE—See Dealers)

PAINTING—

Two-coat work	per yard 50c
Three-coat work	per yard 70c
Cold water painting	per yard 10c
Whitewashing	per yard 8c

PAINTS—

Two-coat work	50c per sq. yd.
Three-coat work	70c per sq. yd.
Cold water painting	per yard 10c
Whitewashing	8c per sq. yd.

Turpentine $1.03 per gal. in drum lots. $1.08 per gal. in 5-gal. containers.
Raw Linseed Oil—not available.
Boiled Linseed Oil—$1.38 per gal. in drums. Available only to work with high priority—$1.48 per gal. in 5-gal. containers.
Use replacement oil—$1.86 per gal. in 1-gal. containers.
Replacement Oil—$1.20 per gal. in drums. $1.30 per gal. in 5-gal. containers.
A deposit of $6.00 required on all drums.

PATENT CHIMNEYS—

6-inch	$1.20 lineal foot
8-inch	1.40 lineal foot
10-inch	2.15 lineal foot
12-inch	2.75 lineal foot

PLASTER—

Neat wall, per ton delivered in S. F. in paper bags, $17.60.

PLASTERING (Interior)—

	Yard
3 Coats, metal lath and plaster	1.50
Keene cement on metal lath	1 80
Ceilings with 3/4 hat roll channels metal lath (lathed only)	1.20
Ceilings with 3/4 hot roll channels metal lath plastered	2.20
Single partition 3/4 channel lath 1 side (lath only	1.20
Single partition 3/4 channel lath 2 inches thick plastered	3.20
4-inch double partition 3/8 channel lath 2 sides (lath only)	2.20
4-inch double partition 3/4 channel lath 2 sides plastered	3.85
Thermax single partition; 1" channels; 2 1/4" overall partition width. Plastered both sides	3.30
Thermax double partition; 1" channels; 4 3/4" overall partition width. Plastered both sides	4.40
3 coats over 1" Thermax nailed to one side wood studs or joists	1.65
3 coats over 1" Thermax suspended to one side wood studs with spring sound isolation clip	1.90

Note—Channel lath controlled by limitation orders.

PLASTERING (Exterior)—

	Yard
2 coats cement finish, brick or concrete wall	$1.00
3 coats cement finish, No. 18 gauge wire mesh	2.00

Lime—$3.00 per bbl. at yard.
Processed Lime—$3.10 bbl. at yard.
Rock or Grip Lath—3/8"—20c per sq. yd.
1/2"—19c per sq. yd.

Composition Stucco—$1.80 to $2.00 sq. yard (applied).

PLUMBING—

From $100.00 per fixture up, according to grade, quantity and runs.

ROOFING—

"Standard" tar and gravel, 4 ply—$8.00 per sq. for 30 sqs. or over.
Less than 30 sqs. $9.50 per sq.
Tile, $30.00 to $40.00 per square.
Redwood Shingles, $7.50 per square in place.
5/2 #1-16" Cedar Shingles, 4 1/2" Exposure $8.00 square
5/8 x 16"—#1 Cedar Shingles, 5" Exposure $9.00 square
4/2 #1-24" Royal Shingles, 7 1/2" Exposure $9.50 square
Re-coat with Gravel $4.00 per sq.
Asbestos Shingles, $23 to $28 per sq. laid.
1/2 x 25" Resawn Cedar Shakes, 10" Exposure $10.50
3/4 x 25" Resawn Cedar Shakes, 10" Exposure 11.50
1 x 25" Resawn Cedar Shakes, 10" Exposure 12.50
Above prices re for shakes in place.

SHEET METAL—

Windows—Metal, $1.75 a sq. ft.
Fire doors (average), including hardware $2.00 per sq. ft.

SKYLIGHTS—(not glazed)

Copper, 90c sq. ft. (flat).
Galvanized iron, 40c sq. ft. (flat).
Vented hip skylights 60c sq. ft.

STEEL—STRUCTURAL (None available except for defense work).

$150 ton (erected), this quotation is an average for comparatively small quantities. Light truss work higher. Plain beams and column work in large quantities $140 per ton.

STEEL REINFORCING (None available except for war work).

$150 to $200 ton, set.

STONE—

Granite, average, $6.50 cu. foot in place.
Sandstone, average Blue, $4.00. Boise, $3.00 sq. ft. in place.
Indiana Limestone, $2.80 per sq. ft. in place.

STORE FRONTS (None available).

TILE—

Ceramic Tile Floors—70c to $1.00 per sq. ft.
Cove Base—$1.10 per lin. ft.
Glazed Tile Wainscot—$1.25 per sq. ft.
Asphalt Tile Floor 1/8" & 3/16"—$ .18 to $ .35 per sq. ft. Light shades slightly higher.
Cork Tile—$ .40 to $ .75 per so. ft.
Mosaic Floors—see dealers.
Lino-Tile, $ .35 to $ .75 per sq. ft.

Wall Tile—

Glazed Terra Cotta Wall Units (single faced) laid in place—approximate prices:

2 x 6 x 12	$1.10 sq. ft.
4 x 6 x 12	1.25 sq. ft.
2 x 8 x 16	1.20 sq. ft.
4 x 8 x 16	1.40 sq. ft.

VENETIAN BLINDS—

40c per square foot and up. Installation extra.

WINDOWS—STEEL—

30c per square foot, $5 for ventilators.

CALIFORNIAN ELECTED DIRECTOR OF U. S. STEEL

Following the regular September meeting of the Board of Directors of U. S. Steel Corporation, Irving S. Olds, chairman, announced that James B. Black, of San Francisco, California, has been elected a director of the corporation to fill the vacancy on the board created by the death earlier this year of William J. Filbert. Mr. Black thus becomes the first Pacific Coast director of the steel corporation.

Mr. Black is president of the Pacific Gas and Electric Company, San Francisco, and is prominent in Pacific Coast civic, philanthropic and industrial affairs. He was graduated from the University of California in 1912, and his entire business career, with the exception of nine years in New York City as vice-president of the North American Company, has been spent in California. His election adds to the membership of the board of directors of U. S. Steel Corporation a representative of the rapidly expanding western industrial area served by the steel corporation.

Mr. Black is a director and member of the executive committee of the Southern Pacific Company, and also is a director of the Equitable Life Assurance Society, Fireman's Fund Insurance Company, Del Monte Properties Company and California Pacific Title Insurance Company.

He is a member of the Business Advisory Council, U. S. Department of Commerce, president of the San Francisco War Chest and a director or trustee of various other California community organizations.

ARCHITECTS MOVE

James W. Plachek has moved from P. O. Box 239, Lafayette, California, to 1000 Fresno Avenue, Berkeley.

James W. Wickenden moved from 762 Vicente Ave., Berkeley, to 1218 Shattuck Ave., in the same city.

William J. Wright moved from 41 Windham Street, Santa Cruz, California, to Box "Y," Felton, California.

RESUMES PRACTICE

Mario Corbett is re-opening his office on October 16 in the Shreve Building at 210 Post St., San Francisco.

DEATH OF BERNARD CAHILL

Mr. Cahill, who has lived in Alameda since 1906, leaves behind an enviable reputation. Besides many famous projects which he designed, his third plan for the Civic Center plan for San Francisco, which was adopted by Mayor Rolph in 1912. He was known for his authorship on many subjects and as editor of the American Builders' Review.

NEW PARTNERSHIP

George B. Allison, A.I.A., and Ulysses G. Floys Rible, A.I.A., announce the formation of their partnership with offices at 650 South Grand Ave., Los Angeles, California.

NEW OFFICE

Chas. E. Butner has opened a branch office in room 610 First National Bank Building, San Jose, California. He will maintain his office at 7 Winham Street, Salinas, California.

1944 BUILDING TRADES WAGE SCALES (JOB SITE) NORTHERN CALIFORNIA

Six- and seven-hour day eliminated on all Government Work. A. F. L. - O. P. M. Agreement calls for eight-hour day.

NOTE: Predeterminations by the Department of Labor, as of July 1 (the wage-freezing date) have not yet been made in all of the counties listed. The wage scales shown are those being paid and in effect mostly by agreement between employers and their union.

CRAFT	San Francisco	Alameda and Contra Costa	Fresno	Marin	Sacramento	San Jose	San Mateo	Vallejo	Stockton
ASBESTOS WORKERS	1.50	1.50	1.25	1.50	1.50	1.25	1.50	1.50	1.25
BRICKLAYERS	1.87½	1.87½	1.75	1.87½	1.75	2.00	1.79-1/6	1.75	1.50
BRICKLAYERS, HODCARRIERS	1.40	1.40	1.05	1.40	1.05	1.50	1.35	1.50	1.14
CARPENTERS	1.50	1.50	1.25	1.43¾	1.37½	1.37½	1.43¾	1.50	1.37½
CEMENT FINISHERS	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
ELECTRICIANS	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70
ELEVATOR CONSTRUCTORS	1.75½	1.75½	1.75½	1.75½	1.75½	1.75½	1.75½	1.75½	1.75½
ENGINEERS: MATERIAL HOIST	1.50	1.50	1.25	1.50	1.37½	1.62½	1.50	1.37½	1.25
PILE DRIVER	1.75	1.75	1.60	1.75	1.75	1.75	1.75	1.75	
STRUCTURAL STEEL	1.75	1.75	1.60	1.75	1.75	1.75	1.75	1.75	1.60
GLASS WORKERS	1.40	1.40	1.12½	1.40	1.12½	1.21	1.40	1.40	
IRONWORKERS: ORNAMENTAL	1.60	1.50	1.60	1.50	1.60	1.31¼	1.50	1.50	
REINF. RODMEN	1.50	1.50	1.60	1.50	1.50	1.60	1.50	1.50	1.25
STRUCTURAL	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.37½
LABORERS: BUILDING	1.00	1.00	.90	.87½	.95	.90	.93¾	.90	.90
CONCRETE	1.00	1.00	.90	.87½	.95	.90	.93¾	.95	1.00
LATHERS	1.75	1.75	1.50	1.75	1.60	1.75	1.75	1.75	1.75
MARBLE SETTERS	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
MOSAIC & TERRAZZO	1.25	1.25	1.12½	1.25	1.15-5/8	1.12½			
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PLUMBERS	1.70	1.70	1.53-1/8	1.70	1.68¾	1.62½	1.70	1.70	1.50
ROOFERS	1.50	1.50	1.25	1.37½	1.37½	1.37½	1.25	1.37½	1.37½
SHEET METAL WORKERS	1.50	1.50	1.50	1.50	1.50	1.50	1.37½	1.50	1.50
SPRINKLER FITTERS	1.58	1.58	1.53-1/8	1.70	1.68¾	1.62½	1.70	1.70	1.50
STEAMFITTERS	1.75	1.75	1.53-1/8	1.70	1.68¾	1.62½	1.50	1.70	1.50
STONESETTERS (MASONS)	1.87½	1.87½	1.50	1.75	1.75	1.50	1.75	1.75	1.50
TILESETTERS	1.50	1.50	1.37½	1.50	1.37½	1.50	1.50	1.50	1.37½

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PUBLIC HOUSING

(Continued from Page 22)

considerable cost and adding to the attractiveness of the neighborhoods as well as the developments which they adorn.

12. In the Sunnydale Housing Development 100 dwellings have been fully furnished for the temporary occupancy by families of Naval combat personnel. These are the families of men temporarily returned to San Francisco for a few weeks while their ships undergo overhaul or battle damage repair. It is their only opportunity for many months, sometimes years of operations, for reunion with their families and is another example of the hospitality of this City to the armed services during the war.

13. It should be borne in mind that employees of the Housing Authority are now working a 48-hour week, many receiving time and one-half for their overtime and, in addition to these high labor costs, material costs are also abnormally high.

14. The rentals range as low as $13.50 per month, including all utilities, garbage collection, etc., to a maximum of $50 for 7-room dwelling, paid by relatively high-income war workers.

15. This unusual financial stability is due primarily to the low interest rate (in itself a demonstration of the Authority's financial soundness) of .57% and to the fact that many war workers pay economic rents proportional to their incomes.

16. Although opponents of public housing claim construction of these developments would imperil real estate values in the City, our experience has demonstrated that neighborhood real estate values have, in fact, been stabilized. This statement is borne out by the fact, as a casual visit to the development will verify, that property owners in the near vicinity have repainted and otherwise improved their properites.

17. The cost of City services extended to these developments is phenominally low. Juvenile delinquency is almost non-existent; police calls are infrequent; no serious fires have ever occurred; no person has ever lost his life by reason of fire, and injuries have been rare.

18. Moving of families from slums to decent housing, even to accommodations of minimum standards, such as public housing offers, does make tenants "better-housing conscious." There is little evidence to support the claim that such persons are less interested in improving their status; the fact is many tenants, as soon as their financial condition permits, voluntarily move out to purchase their own homes or superior rental accommodations.

19. The Authority requires a security deposit of $10 for each family which is repaid at the time of vacating if the accommodations are left clean and in otherwise good condition. This is a most effective way of education on tenant responsibility to landlord.

20. Some opponents to public housing in the past have claimed that the provision of public housing would tend to "pauperize" families. I know of no more effective rebuttal to this claim than this one fact. Holly Courts development, where 118 families have been in residence for more than four years, a total of $130,057 has been collected in rentals and not one cent loss from bad debts. The degree of responsibility thereby demonstrated by the tenants has been so substantial as to make possible a 50% reduction in the provision for vacancy and collection losses.

21. It has been and still is my opinion that the public housing has been a great stimulation to new forms of architectural thinking. It is true that all concerned are of the opinion that too many restrictions have been placed in the past on the freedom of architectural design and I hope and anticipate that definite improvement may be looked forward to in this respect in the post-war period.

22. It is my further opinion that public housing has proved a great stimulant to private business by opening up in a large way and for the first time, the attractiveness of rental housing as an investment rather than as a speculative enterprise, as has been the case so often in the past.

23. To us in San Francisco perhaps the greatest contribution made by public housing to this City has been the tremendous stimulation it has given towards plans for urban redevelopment of our slum areas by private enterprise and rebuilding of this City as a more desirable place in which to live.

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24. You may have noted that I have not thus far touched on the human side of housing and the social gains to the individuals benefited. Intangible though these are, these accomplishments are substantial and impressive. I should like to tell you briefly two stories by way of illustration:

I recall talking to the mother of a high school girl a year or so ago who informed me that now that she had moved to a housing development, her daughter took pride in meeting her friends in her own home. Ashamed of her former substandard dwelling, she had been accustomed to meeting them on the street.

When the first 118 families moved to Holly Courts, we found that 67 children among them were under the age of three years. During a visit there shortly thereafter, I noticed that many of the toddlers playing in the sunny courtyards had what appeared to be a skin rash. I was concerned that some type of epidemic was prevalent and inquired of the manager. He told me that many of the children had never had an opportunity to play outdoors and were simply sunburned.

Public housing developments have been, and very properly, described as "cities of children." Approximately half the residents are children. When these developments return to the low rent status subsidy will be required by both Federal and local governments. I like to think of public housing in this connection—as subsidization of decent living conditions for the children for they are the ones who reap its maximum benefits.

25. In conclusion, I point out that the picture I have given here to you today is duplicated in the main in almost every major city in the United States. I submit to you that the opposition to public housing is in fact no demonstration of its weakness but is, on the contrary, a tribute to its strength.

26. For the immediate future in San Francisco this Authority will complete the construction of the six deferred permanent projects, housing some 1200 persons, immediately at the close of the war. It is the hope of this Authority to lend substantial support to private enterprise in plans for urban development by private capital of the slum districts of San Francisco. Further enlargement of the low rent housing program than this will be made—

first—when the need for this housing is demonstrated, and only if private enterprise is unable to do the job.

Due to the fact that San Francisco is a land-hungry city with few vacant undeveloped spaces, it is likely that any such developments will be limited to strictly slum clearance projects.

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DINING ROOM OF TOMORROW

(Continued from Page 11)

the list, they apparently made the desired discrimination between them. As a result, there is a "modern" runaway for built-ins, while the traditional group held out for corner cupboards.

The "modern" figures on corner cupboards are interesting. They indicate that within this style camp, there are two groups—those who are informed on modern design, and those who think of modern design simply in terms of usable products. The considerable number of "moderns" who would like corner cupboards doubtless think only of their utility.

Oak floors brought forth lower demand than expected. Floor refinishing, however, will be one of the first needs of 28.8%, and another 23.8% consider that refinishing would be a good idea for sometime in the near future.

Two dining rooms were shown in the contest questionnaires—one traditional in style, the other modern—about which readers were asked to express opinions. The esthetic and sentimental strongly influence the comments of those who preferred the traditional style in decoration. For them, the dining room is a sheltered space for meals, served with ceremony; it is a show place in which to exhibit the best they can afford in silver, china and glass. The "modern," on the other hand, indulge in almost no sentiment; they consider it from the standpoint of practicality and usability.

We may live without friends; we may live without books;
But civilized man cannot live without cooks.
He may live without books,—what is knowledge but grieving?
He may live without hope—what is hope but deceiving?
He may live without love,—what is passion but pining?
But where is the man who can live without dining?

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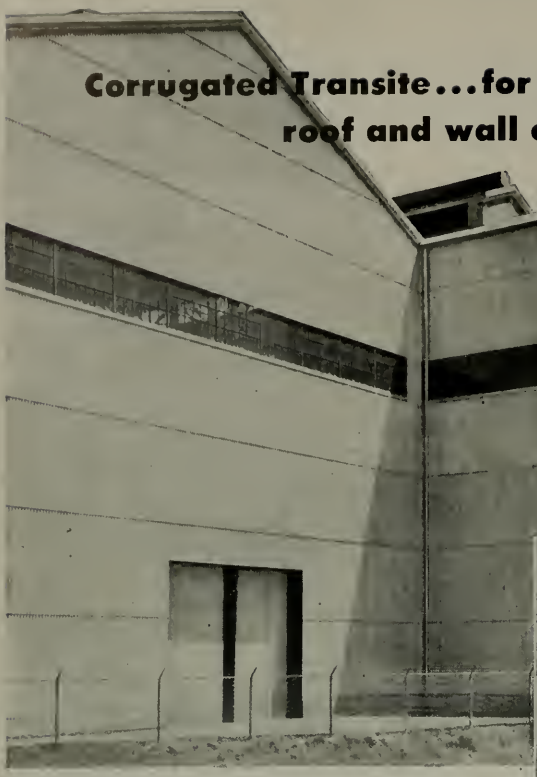

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NOVEMBER

ONARDO DA' VINCI

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RUNNING FIRE — by MARK DANIELS

DEFEATISM

Iconoclasm is one of the last stages of Defeatism and is not a wholesome doctrine for architects any more than for laymen. It is often resorted to by sincere men who have been unsuccessful in converting others to their convictions as well as by those who, like H. G. Wells' "Mr. Polly," merely suffered from dyspepsia. The statement, which we are beginning to hear more often, that architecture is dying, is characteristic of Defeatism.

Architecture is not dead, nor is it dying. Styles change and, if you wish, die, but architecture, per se, will live as long as mankind. There is no record of a time when there was no man who never felt the aesthetic urge. He may have gnawed bones and tossed the bare ones over his shoulder, but sooner or later he selected some particular place to toss them.

Architecture is only one result of the aesthetic urge working through endless time. It may change in form or in purpose, but as a product of a human attribute which strives for a betterment it cannot die except with the passing of mankind.

SPOKEN ENGLISH

It's the war, of course it's the war. But it is becoming increasingly trying to try to do business with these shops and stores that are forced to employ the foreigners who are letting us take care of them while their countries are having trouble with the Nazis. Perhaps the suggestion that some of the merchants employ interpreters might be of use. Anyhow, it is refreshing to meet a returned G. I. and hear him talk good old United States. If we keep on sending our boys across the Atlantic and the Pacific we may find that we will have to take a trip to France or Germany to familiarize ourselves again with spoken English.

THE ART COMMISSION

San Francisco has an Art Commission. To sit through one of their meetings while one member reviles the others might lead to the belief that it is a slander commission rather than an Art Commission, unless one realizes that slandering is an art.

Commissioner Bufano has indulged himself so often in the pastime of insulting his brother commissioners that a great deal of time is wasted. In the cause of that efficiency which should characterize the meetings of all Art Commissions, it might be a saving of time to establish a schedule and allow a quarter of an hour of each meeting in which Commissioner Bufano will confine all his insults to other commissioners. It really would save time.

THE SHOEMAKER AND HIS LAST

We have been taught that the shoemaker should stick to his last, which is probably the best of advice so long as there is a last to stick to, but when it is taken away from him it is not always possible to find or make another last. In a way that is the trouble with the architects. For centuries they have been working along well-defined paths in the direction of mental and aesthetic development, staying well within the field of their chosen art. They were sticking to their last even in their battles of the modern against the traditional. But with war and the resulting restriction of the use of building materials by civilians there was no last for many architects to hammer on, and they were driven into other occupations.

It may be argued that those architects who are thus driven to other professions or occupations, never to return to their chosen work, probably would have drifted out of it anyhow, but this is not true. After several years away from an office organization a man may find that he cannot catch up with the movements in his profession and organize an office again. It is possible that such losses to the architectural profession may be serious for a generation. It may also bring in new blood which, after all, would be a blessing. In any event, the statement that I have heard several times lately that the architects are like actors, the comedians want to be tragedians, they all want to to do something they are not trained for, is without sound foundation.

ART TO BE RESTORED

"Side by side, the architectural magnificence of the past and the new buildings of the future, simple and dignified, once stood. Due to Nazi pillage much of this ancient and modern glory has fallen. The Russian people realize that while to destroy is easy, to re-build, in their case, is a gigantic task. But it is not an impossible task. They will restore the old wherever possible, and new monuments to spiritual greatness will rise again."

A NOTE FROM MY BIRD'S DIARY

8:03 A.M. Finished my opus #368,792 in G minor. Not bad.

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TOMB WARE OF ANCIENT CHINA

THE AGE OF TOMB WARE

By CHINGWAH LEE

The era between the Han dynasty (206 B. C.-220 A. D.) and the T'ang dynasty (618-906 A. D.) finds Chinese potters producing earthenware in vast quantity for internment with the dead. These mortuary objects were produced with great economy of effort, yet some of the most attractive vessels and the finest sculptured animals and figurines were produced in this space of about a thousand years.

The period is a puzzling one to beginners, for it apparently is filled with many, mostly short-lived, dynasties which apparently overlap each other chronologically. The various dynasties are generally listed as follows:

Han dynasty	B.C. 206–A.D. 220
The Period of the Three Kingdoms	A.D. 221–A.D. 280
Chin dynasty	A.D. 265–A.D. 419
Division into North and South	A.D. 386–A.D. 589
Wei Tartars, etc.	A.D. 386–A.D. 577
Chinese dynasties	A.D. 420–A.D. 589
Sui dynasty	A.D. 589–A.D. 618
T'ang dynasty	A.D. 618–A.D. 906

Chinese historians also mentioned a "Six dynasties" as belonging to this period. This is because six of the above listed dynasties had their capitals successively at present-day Nanking—hence the term "Six dynasties" is synonymous with the Post-Han or Pre-T'ang period.

Immediately after the Han dynasty we note the production of a proto-porcelain coated with an olive glaze which is sufficiently high-fired to be lifted out of the pottery class. We may note here that pottery is a term now generally applied to ceramics which are sufficiently soft to be scratched with steel, are not impervious to water unless glazed, are opaque to light, and which when struck give a low resonant note. Porcelain, on the other hand, is white and vitrified, translucent, impervious to water, hard enough to withstand scratching by steel, and when struck, gives a high musical tone. Stoneware for porcellaneous stoneware) is about halfway between the two in these qualities.

The majority of the outputs, however, are of pottery—grey, buff or brick-red in color. The glaze, if used, is generally applied by painting, and stops short of the base—probably as a means to keep the glazed ware from sticking to the surface on which it is resting during the firing. Frequently the glaze is applied over incised designs. Glazes of this period are generally minutely crazed. A

large number of the outputs are not glazed but are covered with a white or buff slip—a slip is a liquid solution of the pottery material—which provides a smooth surface for painting with red, black or green pigments.

During the early part of this period the pottery showed a great variety of forms. A large number of statuettes were made, and there is a trend toward the slender human figures. The placing of the heads of zodiacal animals on human bodies had its origin at this time. A tan or chocolate glaze of great richness made its appearance, but the majority of the glaze used is a continuation of the Han green glaze. The Sui dynasty is an important period, producing many new and vigorous forms. Hindu influence is very strong at this time, and the men and animals are often depicted in movements. The typical Sui pottery is a soft brick-red clay, generally covered with a thin white slip. The Sui potters paved the way for the next period, the T'ang dynasty, praised by all connoisseurs as the Golden Age of Pottery in China.

During the T'ang dynasty China reached its widest expansion, and it was a period of enlightenment and splendor in literature, art and political organization. The T'ang potters produced vessels and figurines which have an instantaneous and universal appeal to art lovers. There was a constant exchange of traders, scholars and missionaries between China and the outside world. Especially strong are Gandharan (Greco-Roman Buddhist), the Gupta (native Indian) and the Sassanian (Oranian or Persian) influences on T'ang art. The horses and camels, whose images are reproduced in a very naturalistic style in pottery are Bactian in origin. The urns, amphoras and pilgrim bottles are decidedly Hellenistic in style, while the floral designs in garments and trappings reflect the Persian school.

Besides the green and brown glazes of the Han dynasty and the chocolate glaze of the post-Han period the T'ang potters now have many other colored glazes, including a buff, a pale yellow-green, a leaf-green, an amber-brown and a blue. These are all of the lead silicate type and are fired in a kiln with moderate temperature (demi-grand feu). The various colors are due to the presence of minute quantities of minerals in the glaze material. The leaf-green color, for example, is traceable to the presence of copper oxide. This glaze is of a deeper shade than its Han forerunner. A "tiger-skin" glaze is a buff glaze with dapples of green and amber-brown. The equivalent of a **san ts'ai** (three-color decoration) of the Ming dynasty is made by first incising the outline of a suitable design on the body and then painting with colored glazes within areas defined by the outline.

The T'ang potters produced a host of companions to the dead—such beings as officials, guardians, grooms, foreigners, wayfarers, peddlers, actors, musicians, and dancing girls, and such animals as oxen, rams, hogs, camels, dogs, and horses. "If these figures of men and demons, horses, camels and cattle were all that was left to us of T'ang art, they would alone be enough to stamp their era as one in which artistic conception and craftsmanship stood at a level attained only here and there in the history of human culture." (Bernard Rackham.)

The T'ang potters also developed several high-fired glazes on porcellaneous bodies. Besides a water-green or celadon glaze, whose color is due to the presence of iron in the glaze, there is a brownish black, a colorless white, a cloudy grey, olive-tan and some splashed glazes based on modification of these colors. These are generally

(See Page 16)

ONE OF ABBOTT COLLECTION OF NAVAL PAINTINGS
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IN THE NEWS

THE FRANK LLOYD WRIGHT LUNCHEON last month was attended by laymen as well as architects in a goodly number. Even the menu was good—and simple.

Mr. Wright started his talk with the statement "Architecture is dying—pretty near dead." If he meant the architectural profession, which is reasonably doubtful, he didn't say so. From that he went on to other aphorisms such as "We get individuality confused with personality," "We are ruled by mob-ocracy," and "we are a nation of gadgeteers," all of which seemed to strike a sympathetic chord with his auditors.

Toward the end of his talk, Mr. Wright dwelt in a general way on the impossibility of ever having an architecture worthy of the name under a capitalistic system of government, which brought out from the audience the thought that if this were true of architecture possibly we could have no form of art or aesthetics under such a system.

Mr. John Donovan inquired if Mr. Wright thought that the teaching of architecture should be abandoned. To this Mr. Wright replied that he would advocate the closing of every architectural school in the country for a period of ten years.

The faces of many of the highly trained Beaux Arts architects lit up with smiles when he ridiculed the constant use of modernists' cliché "Functional." But a full discussion of Mr. Wright's remarks pertinent to architecture would call for an article beyond the scope of this brief report.

MR. HOWARD ELWELL has announced the opening of new offices at 1520 Wilshire Boulevard, Los Angeles, California.

PROGRESS MEASURED IN REVERSE

The Army Engineers have unconsciously come to guage the progress of the drive of American armor across northern France by the rate with which the old type of timber bridges are put in place. In other words the speed with which modern steel bridges are replaced with old-fashioned wood bridges determines the speed of advance. It works this way.

When the far shore is cleared of the enemy the Engineers erect an old-fashioned but substantial timber structure as near as practicable, releasing the steel bridge for use in more advanced locations. These steel bridges have the two highly prized features of portability and speed of construction.

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The stone-mason's art and the modern science of heating join forces to give this house appealing warmth . . . in both exterior design and interior comfort. ★ A home of enduring charm!

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IN THE NEWS

NAMED MANAGER

John J. Moffatt, formerly of Chicago, has been named Pacific Coast manager for the Electric Appliance Division, Westinghouse Electric & Manufacturing Company. Mr. Moffatt will have charge of the Division's activities in Washington, Oregon, California, Idaho, Nevada and Utah, major parts of Montana and Arizona, Western Wyoming, and the Territories of Alaska and Hawaii.

EDWIN L. SNYDER announces the opening of offices in the Seven Arts Court, Carmel, California.

THE PRODUCERS' COUNCIL presents a new idea for manufacturers which might be used by architects, as can most of the business-getting methods of the manufacturers. It is called JOB-PILING, which is nothing more nor less than a simple method of establishing a card file of every job that comes to the attention of anyone looking for business. It has been installed by a number of firms and it works. It might be of use to those architects who are looking for small jobs.

PUBLIC RELATIONS FOR GENERAL CONTRACTOR

"Good Public Relations for the General Contractor," a 24-page manual on the building of public good will, has been published by the Associated General Contractors of America as part of its public relations program for the general contracting industry.

Printed in three colors and illustrated with sketches, the booklet contains a public relations chart, sample advertisements, and project signs and posters for the use of contractors. Numerous examples are given in the manual on how public good will can be merited, attained and kept.

Designed to fit the particular needs of general contractors, emphasis is placed upon the fact that good will must be earned and cannot be bought, that it's a business asset on which both money and effort can be well spent.

CENTRAL VALLEY PROJECT MILESTONES

Dec. 19, 1933—The Central Valley as State project approved by people of California at special election.

Sept. 27, 1933—State filed application for grant under National Industrial Recovery Act.

Dec. 2, 1935—The Central Valley Project officially adopted by Federal Government when report of feasibility by Secretary of Interior Ickes was approved by President.

Oct. 19, 1937—Construction began on Contra Costa Canal.

Oct. 22, 1938—Construction began on Shasta Dam.

Nov. 5, 1939—Construction began on Friant Dam.

Aug. 19, 1940—Contra Costa Canal first delivers industrial water.

Dec. 19, 1940—Construction began on Madera Canal.

Aug. 25, 1941—Construction began on Keswick Dam.

June 4, 1944—Madera Canal first carries water for irrigation.

July 14, 1944—Shasta Dam Power Plant first delivers power for war industry.

GUY L. ROSEBROOK has changed his address from P. O. Box 1488, Stockton, to 1451 Princeton Avenue, in the same city.

NEW DESIGN SKETCHING BLOCK

A patented Sketching Block designed especially for draftsmen, engineers, and surveyors, which has a non-slip cover with four separate and distinct "wings," uniquely attached, has been announced.

Containing 75 sheets of fine tracing vellum in sheets of 9 x 12 inches, it is constructed so scales of 1/10-inch, 1/8-inch, 1/4-inch, and 1/12-inch, plus an isometic chart over a 1/8-inch scale may be inserted directly beneath the tracing paper.

Originally designed for draftsmen and engineers in war work, these Sketching Blocks are now available for civilian use: CRAFTINET MANUFACTURING COMPANY, Cleveland, Ohio.

MR. ALBERT W. BURGEN has moved from 4905 Sixth Avenue, Los Angeles, to 1830 Beach Street, San Francisco, California.

NEW PLYWOOD CATALOG

Graphically illustrating the general practice in plywood application, together with numerous plywood panels and exterior and interior joints, and featuring "Super-Harbord" weatherproof plywood, a new catalog has been issued and is available to the building industry by the HARBOR PLYWOOD CORPORATION, Hoquiam, Washington.

THE BEST ARCHITECTS ARE "FROM MISSOURI"

YEARS AGO, when we first introduced COLOTYLE, the Missouri-minded architect said, "Show me." This skepticism merely made us more determined to prove the merit of this superior, plastic-coated wallboard.

Year by year, as COLOTYLE installations grew more and more numerous, architects, contractors and home owners swung over to this original plastic-coated wall sheet, until today, even the most skeptical has been completely convinced about COLOTYLE's merits.

Had we been wrong in our claims, architects who had specified it would have been risking their professional reputation. Fortunately for us, COLOTYLE has lived up to every single claim made for it.

The home builder who relies upon his architect gets more than designing skill. He gets an attitude that assures him of quality products that makes his home more livable, and more valuable.

Although COLOTYLE is still a war casualty, the experience and knowledge gained during these war years will undoubtedly result in improvements that will keep COLOTYLE years ahead in the wall board field. Not only in our own plant, but also in the production of Pacific Huts, which was created and developed by COLOTYLE, have we learned improved methods which will not only create a better product, but will, at the same time, effect many economies impossible before the war.

COLOTYLE, after the war, will be even finer than it was before. As time has proved, every claim that will be made for COLOTYLE will be backed up by facts, proved to the satisfaction of even the most skeptical.

COLOTYLE...THE PIONEER

COLOTYLE is credited with introducing more ideas into the wallboard industry than any other manufacturer. Here are a few of the "firsts":

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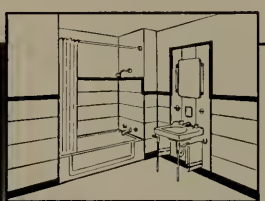

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LEONARDO DA VINCI

From 1452 to 1519 Leonardo da Vinci lived and demonstrated in ever increasing vigor the truth of an all but forgotten axiom that creative art is not restricted to any class or group. In these days of what we are pleased to call specialization we suffer from the misapprehension that to be an artist we must wear long hair and a bow tie, to be an engineer we must comb that hair with a slide rule, to be an architect we must—well, you call it.

Leonardo da Vinci was an architect, an engineer, a scientist and an artist. He excelled in all these mental activities although perhaps the principal reason most of us remember him as an architect and engineer is because he lived and died a comparatively poor man. The fact that he preferred to live that way rather than as a true Medicean we have forgotten.

It is my opinion that there are Leonardos among us today but we do not recognize them. The human mind has not changed materially in its relation to science and aesthetics during the last half millennium. Many of our great architects were trained in engineering and many good engineers are great artists.

This is neither a history of Leonardo nor an essay on his attainments. It is written to awaken a few failing memories and to partially explain the use of a portrait of Leonardo da Vinci on the index page of the contents. It seemed particularly appropriate that THE ARCHITECT AND ENGINEER should use the picture of that great man on its third page.

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★

AMONG the more than 100 paintings on exhibition at the California Palace of the Legion of Honor in November, which paintings will become a part of the Navy's permanent War Museum, are these two in the Abbott Collection of Naval Aviation Paintings, The Man in the Oxygen Mask and Ready on the Line, by Joseph Hirsch.

★

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(From Page 7)

AGE OF TOMB WARE

fired at a high temperature—between 1200 and 1400 degrees centigrade — and the wares were generally made for the living rather than for the dead.

Of the many historic kilns of this period which were mentioned in Chinese literature but few can be identified. Archaeological excavations are just beginning to show us what some of them are like. The Yueh chou kiln site, for example, was discovered by J. M. Plumer in Chekiang in 1935, and today we know more about this ware than did collectors of the past four or five centuries. The Yueh kilns were situated at the Shao-hsing district which was under the jurisdiction of Yueh chou during the T'ang dynasty, hence the name. The ware has a buff-white or grey-white paste which turns reddish at the foot-rim in the heat of the kiln. The blue-green glaze, which is somewhat thin and limpid, is highly crazed, giving the "fish-roe" effect. Chinese poets speak of Yueh ware as being like "snow and jade"—a phrase which doubtlessly refers to the translucent and greenish quality of the glaze.

The T'ang pottery came to an end in a blaze of glory, for the next three succeeding periods were devoted almost exclusively to the production of stoneware—and these were made mostly for the living rather than for the adornment of the tombs.

FRANS REDERER PORTRAIT

IN THE NEWS

CUTLER-HAMMER ANNOUNCES NEW SAN FRANCISCO MANAGER

Cutler-Hammer, Inc., pioneer electrical manufacturers, Milwaukee, Wisconsin, announces the appointment of Mr. J. M. Cook as manager of the San Francisco District Sales Office.

John Marvin Cook was graduated from the University of Minnesota in 1928 with the degree of B.S. in electrical engineering.

He has handled the sale of all Cutler-Hammer products for all classes of industry, and is well known in the Cincinnati area as an outstanding motor control application specialist.

The San Francisco district office has charge of the sale of all Cutler-Hammer apparatus in that territory which includes Northern California, Western Nevada and part of Oregon.

KENT and HAAS, ARCHITECTS, are busy on drawings of the 340 dwelling units they are doing for the Federal Public Housing.

CONTRACTORS PREPARE TO HANDLE POST-WAR CONSTRUCTION

Contractors have on hand construction equipment and machinery valued at approximately $2,000,000,000, and they are prepared to handle new construction at an annual rate of from $11,000,000,000 to $12,000,000,000 within one year after the end of the war, the Associated General Contractors of America, the national trade association of leading construction firms, reported recently.

"Total valuation of privately-owned construction machinery is estimated by persons in the industry at $1,300,000,000," the A.G.C. said, "and an independent estimate made by the Bureau of Labor Statistics gives the same figure. To this should be added at least $400,000,000 for trucks and $250,000,000 for miscellaneous equipment, making a total inventory of $1,950,000,000 for all construction equipment."

According to a recent report by the Bureau of Labor Statistics, productive capacity of all types of construction materials, except plumbing and lumber, is sufficient for a construction rate of $15,000,000,000 per year, the A.G.C. continued. In the lumber industry, sawmill capacity is sufficient, but logging equipment has deteriorated. Capacity for plumbing fixtures is adequate for a construction program of $12,000,000,000 per year, with a likelihood of expansion before this rate is reached.

TWO OF THE LIGHTER-THAN-AIR SUBJECTS IN THE ABBOTT COLLECTION OF NAVAL PAINTINGS EXHIBITED AT THE CALIFORNIA PALACE OF THE LEGION OF HONOR IN SAN FRANCISCO

by Adolph Dehn

WACS AT WORK

OCCUPATIONAL THERAPY

By LT. VIOLETMAY CLARKE

War brings untold numbers of casualties! No matter how carefully plans are laid and how much material is expended instead of lives, battles fought mean men killed and men wounded.

It is good to know that in this war wounded men receive medical and surgical attention very quickly and that a far higher percentage of the wounded recover than in previous wars. But rehabilitation is almost as important as initial recovery. Men who have been hurt must learn to live again. Thus it is also good to know that there are new methods and trained personnel that help greatly in restoring new life to those who have been wounded.

Men who have suffered amputations and those who have received severe wounds of other types are helped to recovery during convalescence by means of Occupational Therapy. They must learn to use the injured parts of their bodies and the new limbs. They must develop skill in manipulating them.

The ingenuity and skill of Occupational Therapists and willing efforts of the men themselves are needed to select a job that accomplishes the desired results in restoration of the new or injured member to as near normal usage as possible.

It is an art which deals as closely with the heart and mind as it does with limb and muscle. Under skilled and patient supervision, the men are intent on their jobs of woodworking, clay modeling, painting, printing, weaving and metal work. Their games of ping pong, darts, or checkers also help in increasing their muscular and nervous skill.

His nerves and muscles must become so familiar with the new tasks imposed on them that he can be almost as unconscious of their new and at first strained usage as he is of the movements of the rest of his body. Each man does the work which will help him most in the process of convalescence and recovery.

An artifcial arm is controlled by the muscles of the opposite shoulder on which the straps are adjusted. Various types of work help to train these muscles, but one of the most effective exercises is provided by two games, darts and ping pong. The large sweeping arm motions these games require begin the retraining that is carried out in later stages by leather tooling and other tasks requiring finer manipulations of the artificial arm.

(See Page 31)

A.I.A. ACTIVITIES

The Southern California Chapter of the A.I.A. has carried on its plan of unification amongst the architects of that chapter until it is not only bringing results with the architects of that district but has stirred a belated interest in architectural circles in Northern California.

Bulletins issued by the Southern California Chapter have been particularly effective in awakening not only the architects but the prospective builders as well.

The slogan "ENGAGE AN ARCHITECT" has registered surprisingly considering the fact that these bulletins are distributed among such a comparative few, but much of the progress that has been made will be lost if these five bulletins cannot be followed by continued and continuous similar effort.

After the meeting last month with the members of the San Francisco Chapter at which Mr. Lunden and Mr. Heitschmidt, both from Los Angeles, turned on a little heat, the northerners bethought themselves of some possible way to more or less duplicate the methods of the southern chapter, and possibly to go them one better.

As a result a conference is now going on looking toward a simplification of the ways of unification that will result in the satisfaction of all architects as well as the members of the A.I.A.

Of course one of the first problems will be finance and how to defray the expenses of a real campaign to place the architectural profession in the proper light with the public but, strange to say, this is not going to be the major problem. THAT problem will be to get the architects to agree on what will be best for them.

SELLING AID FOR MERCHANTS

"Machines For Selling" is the title of a new pamphlet designed to interest retailers in tested and proven formulas for practical store planning and effective interior and exterior designs.

Covering the subjects of "Retail Merchandising," "Styles of Lettering and Proper Use of Signs," "Interior and Display Window Illumination," "Air Conditioning and Ventilation," "Color and Its Proper Application," and "Cleaning and Maintenance," the booklet is currently issued by THE KAWNEER COMPANY, Niles, Michigan.

PRODUCTS that answer SPECIAL PROBLEMS

KRAFTILE

supplies these helpful products

Kraftile is more than a manufacturer of structural clay products We are also the Western distributor for the five lines shown here—lines embracing several products, each designed to answer some problem commonly met by the modern architect, engineer, or contractor.

Waterproof sundeck construction . . . the installation of brackets or hangers without welding, riveting, or bolting... the installation of structural glass...how to make masonry walls leak-proof...the protection of marble finishes. These are a few of construction problems solved by Kraftile-distributed products. In addition, Kraftile sales engineers are ready to help you with *any* construction problem, regardless of whether one of our products offers the solution. Save your time by asking us first! We will provide you with the answer, if an answer is obtainable. And there is no charge or obligation connected with this service.

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Standard for trim.

Quick Drying for floors

(Combines preservative materials and stain in one penetrative liquid. Spots can be touched up to surrounding color; floors never need re-surfacing.)

MINWAX FINISHING WAXES: Minwax Paste Wax • Minwax Liquid Wax • Minwax Dri-Glas

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Alkali-proof paint for basement floors.

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For installing cork, Fiberglas, etc.

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For installing conduits, plumbing, cabinets, etc., on brick, steel, concrete, wood or tile walls without drilling or welding. Anchored with Miracle Adhesive.

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Made in five types. One and a half gallons will set the same amount of tile (100 sq. ft.) as ½ ton of mortar.

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Non-slip plastic deck covering for steel, wood, or concrete

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NUKEM ENAMELS:

Resistant to all acids, alkalis, solvents, and chemical fumes.

NUKEM PRIMERS

NUKEM CLEAR GLOSS FINISH

RAYBESTOS

SAFETY WEATHER DECKING

The Tower Entrance at the Grace Cathedral

"The sort of thing one gets in the Redwood groves—sound absorbed in silence."

MODERN ARCHITECTURE

in the GOTHIC MOOD

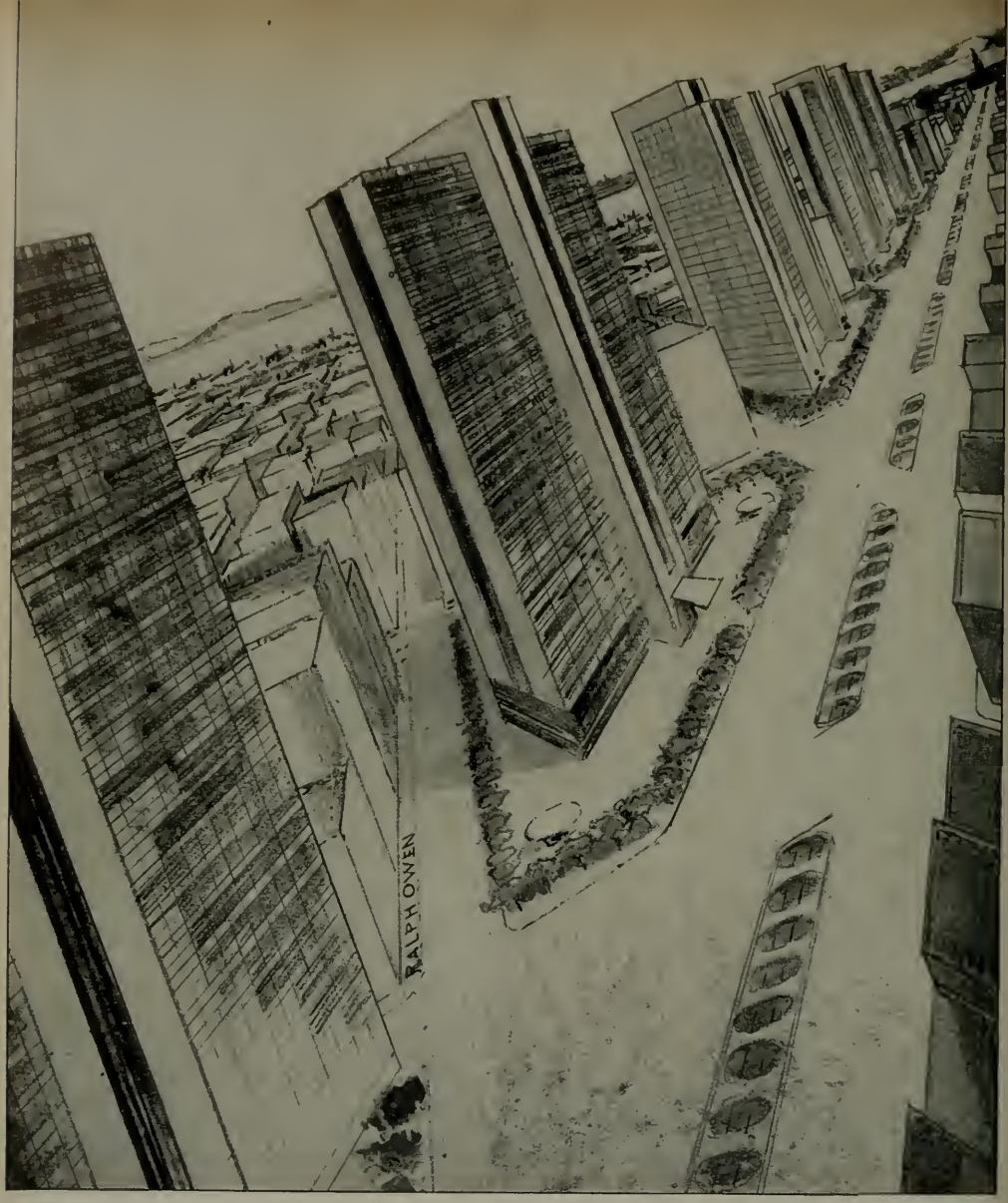
To reproduce in print an architectural element of Gothic inspiration in a building of today usually opens the door to a flood of argument and discussion of the propriety of introducing traditional motifs in our present-day architecture regardless of the particular case in question. Often this quickly drifts into the advantages, or otherwise, of the pointed arch, the generic principles behind the distribution of mass and form and the development of architecture through the Greek, Romanesque and modern schools, and the question at hand is quickly forgotten.

The desirability of the use of the Gothic school is not here considered. That may be left to authorities such as William Morris, T. E. Tallmadge, Banister Fletcher and others.

What we are considering is, "Isn't that a lovely doorway? Doesn't it invite you to worship?" The mere fact that a sort of renaissance of Gothic was begun in the period when the Victorians usually "were right on questions of morals and wrong on questions of taste" should not mitigate against the use of a motif by Pugin, who put fire and passion into Gothic architecture a hundred years ago.

Here is a note from someone who evidently has traveled and observed much. Unhappily he did not sign it but he expresses the in-

(See Page 33)



AIRPLANE VIEW LOOKING TOWARD THE FERRY BUILDING

Eldridge T. Spencer, A.I.A., and Wm. Clement Ambrose, A.I.A., Architects.

AN ANSWER FOR MARKET STREET

By ELDRIDGE T. SPENCER, A.I.A.

Architects Associated

At a luncheon given recently in honor of Frank Lloyd Wright, Gardner Dailey asked the question: "What should be done about Market Street?" As I recall, Mr. Wright passed this question completely, and chose to answer a smaller scale question which had to do with 25' lots. He did make one statement, however, that might pertain to Market Street. He said, in effect, that a minority report had, by its nature, the possibility of a real solution to a problem, while a solution recognizing the thoughts and plans of all concerned never rose above the mediocre.

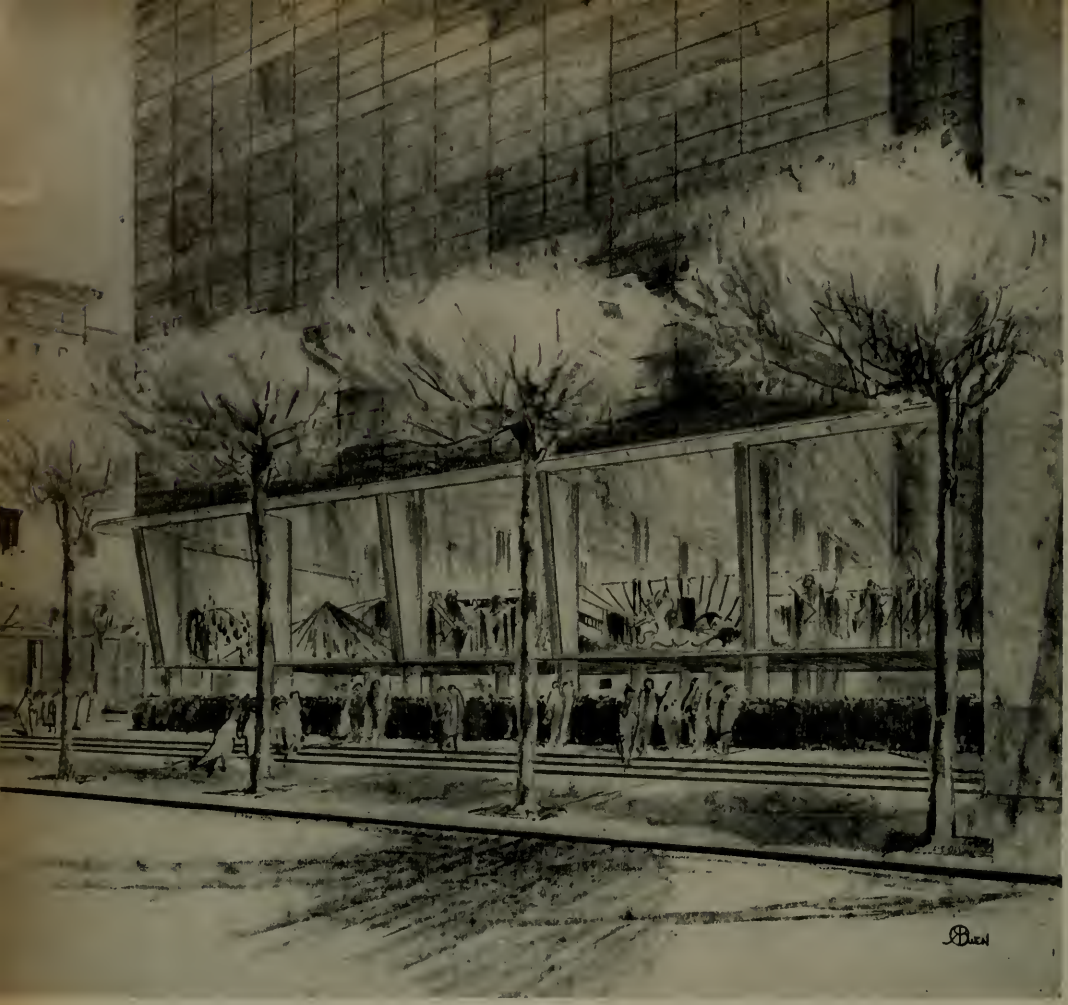
This proposal of what to do with Market Street will not be acceptable to everyone and is in opposition to the major factors which have controlled its development. These factors have been more those of opportunity than of logic. "Defense financing," or the building of carrier improvements to defray taxes until such a time as some one else has improved the neighborhood or the growth by pressure from without has increased property values, is the keynote to the present unsatisfactory condition. Defense football does not bring in cash customers nor is it enjoyed by the players; neither does defensive civic development contribute to the overall standard of living nor is it enjoyed by those who are forced to take part in it.

The refusal of the community to accept overall long term planning has been one of its greatest mistakes. The 1906 catastrophe seemed intended as the sequel and to be part and parcel of the Burnham Plan presented in 1905. Unfortunately, the opportunity slipped through the fingers of the civic leaders. Overall social changes have been rapid in the last 35 years and the impending changes are so tremendous that all cities, including San Francisco, are at a critical point in their existence.

It is obvious that something should be done to Market Street. To do something about it, it is first necessary to make a short analysis of the defects to be corrected. One can lift the analysis, almost whole, from the County of London Plan, proposed by the London County Council and published in 1943. We find under "Defects of Present Day London," page 3:

> "There are four major defects for which a plan, if it is to be of any value,

PLAN OF STREET SYSTEM SHOWING NORTH SIDE OF MARKET STREET



TYPICAL DETAIL FOR SHOW WINDOWS ILLUSTRATING ADVANTAGES OF UNOBSTRUCTED SIGHT LINES FOR WINDOW SHOPPERS

> must propose fundamental remedies. These we proceed to examine in detail. They comprise traffic congestion, depressed housing, inadequacy and maldistribution of open spaces, and finally the jumble of houses and industry which showed itself in a general tendency towards 'indeterminate zoning.' "

In the case of Market Street a solution of the traffic congestion needs no champion. Thirty-five years ago, Burnham stated in his Report on a Plan for San Francisco that "the increasing congestion of lower Market Street indicates the necessity of widening this thoroughfare." The only change that has taken place in this condition since that time is in the extension of the congestion as far as Van Ness Avenue.

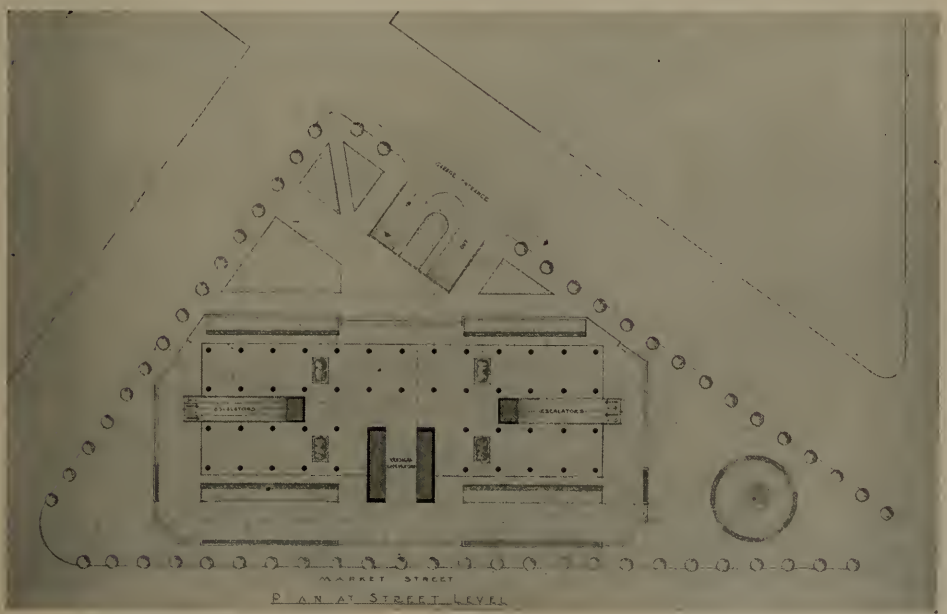
Depressed housing in this case has its counterpart in depressed housing of business. This depressed character or mood, which, in the renaissance might have been termed a lack of beauty, is the most important and deadly of all the defects. The inadequacy and maldistribution of open spaces can only be brought into the discussion at this time by recording the fact that no open spaces exist. For the purposes of this study, depressed character and a lack of open spaces will be con-

sidered together as one blight. In this proposal only the elimination of the blight on the north side of Market Street from Leavenworth Street to Drumm Street is considered. These twelve triangular blocks are, however, the most difficult to work with because they are the result of the intersection of two sets of streets with Market Street. None of these three way street intersections have a corresponding intersection on the south side of Market Street which is of value to cross traffic. The ferry terminal, the junction with the civic center, and the extension of Market Street are comparatively simple problems, once the character of the whole is established.

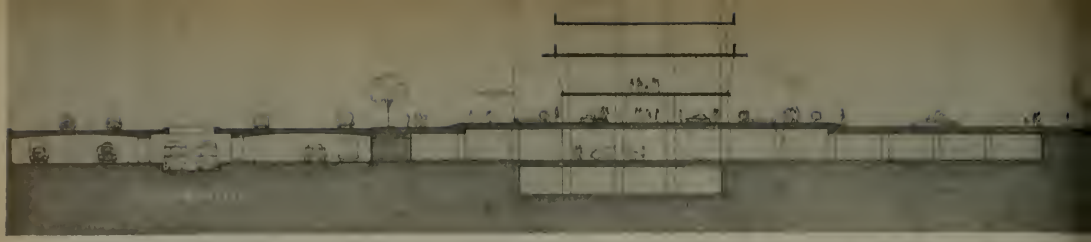
This answer of what to do with Market Street may be divided into three separate although closely interrelated ideas. The traffic congestion is solved by a below street level freeway and parking system. The blight of "depressed" character is corrected by a building setback and percentage of land occupancy regulation. The correction of improper zoning or, more realistically stated, the planning and controls for the several uses concerned so as to create a sound overall financial structure and at the same time create an inspirational environment is almost a matter of simple arithmetic when overall values are given their proper weight.

The below street level circulation shown on the drawings would be used for all public transportation and also by such trucking, taxi service, and private cars as would find this the shortest route to their destination. This level of circulation would be open to the air by means of large apertures in the street level and, if desired, could be connected with the below street level parking facilities of each block. Non-intersecting ramps would provide connections to the northern streets at such points as required. Surface motor vehicle traffic, once freed of public transportation, and freeway traffic would be able to move without congestion. At the foot of Market Street the two level traffic could be integrated into the planning commission's designs for the north-south freeway passing in front of the ferry building. Bridge terminal pedestrian and public transportation could be easily related to the two level scheme.

To widen horizontally is more important for relief of depressed character than for relief of traffic congestion. Ordinances and regulations providing for a building setback of 25' from Market Street plus a maximum percentage of lot occupany would create the open planning necessary to relieve the depressed character. This open space would be free of construction and be large enough to maintain the trees and planting needed. The resulting composition as shown in the drawings would be a monumental pattern of structures with planted areas in varying depth. The impact of the northwest corner of the intersecting streets such as Pine and Davis would be relieved because the building line at this corner would be set back even further than the new face of the buildings on Market Street. A reduction in the percentage



PLAN OF TYPICAL BLOCK AT STREET LEVEL

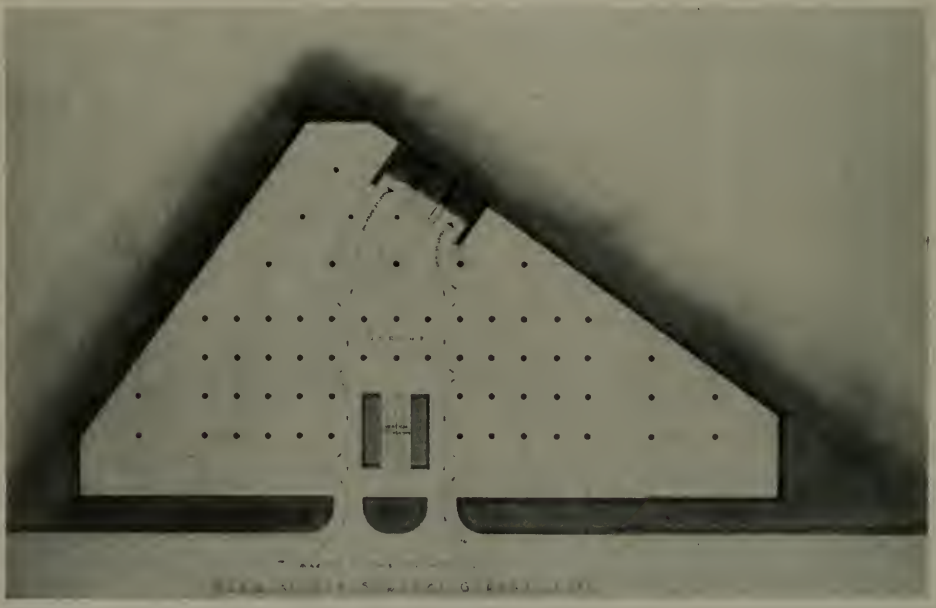


SECTION THROUGH TYPICAL BLOCK SHOWING RELATIONSHIP TO SUB STREET LEVEL FREEWAY ON MARKET STREET

of land occupied on the street level would insure proper spacing for buildings as high as the maximum efficiency of our present means of vertical circulation permits. The basements of the buildings, reserved for parking and service could be reached from the Market Street freeway and by ramp from the adjacent street system.

Elimination of retail business and of show windows from the first floor or street level would do away with the overcrowding of sidewalks but would also be more efficient as the sight lines to second floor show windows or exhibition space cannot be interrupted. Access to the main business floors above the ground floor would be by escalator to eliminate the resistance of pedestrians to leaving the street level. The recently finished Mercantile Bank Building in Dallas, Texas, conducts its banking business on the second floor. That a banking institution would forsake the street level in its own building indicates the trend to remove important business transactions from unsatisfactory street level locations. The extremely overcrowded sidewalks on most of the 12 Market Street blocks does make a profitable business in quick sale merchandise but to the detriment of the adjoining space. Sound overall business planning would reduce the amount of the quick sales trade to a minimum and house it in isolated kiosks.

Using the values recorded at the Assessor's Office in the City Hall, we find in round figures that the average land value per block for the 12 blocks is one million dollars and the average improvement per block is two hundred and ten thousand dollars. That is, the land value is approximately five times the improvement value.



PLAN OF TYPICAL BLOCK AT SUB STREET LEVEL

ELEVATION OF TYPICAL BLOCK

Who suffers by this situation? The actual owners of the property to some extent as individuals, but principally the city as a whole suffers. It endures boresome, uninteresting, depressing environment and, as final retribution, is now faced with a landslide in city values as a whole due to threatened decentralization.

A healthy condition would call for higher assessed value on improvements than on the land. In terms of dollars the total assessment is under three million for improvements while it should be five or six times this amount. Is it any wonder the cities are being taxed out of existence? San Francisco may be fortunate that it is waterlocked on three sides. It is one of the few cities that will have to solve its problem of growth by the efficient use of its present terrain rather than by the customary procedure of moving outward to new land.

The records show that in some of these blocks enough of the property is owned by institutions, corporations or trusts guided by men of vision and ability to start such a program as proposed for Market Street. Ordinances and regulations for future building should not be difficult to realize with our present enlightened city government.

A beautiful, inspirational and financially practical Market Street can be created which will give our modern city a character in keeping with its right. Market Street can become again an inspiration to the world instead of just a bitter experience, as it now is, to the service men and women who trudge up one side and down the other in search of the legendary San Francisco.

Appreciation is expressed to my wife, Jeannette Spencer, to Mr. Wesley Talley, Mr. Robert Gann and Mr. Ralph Owen for their interest and effort on this study.

NIGHT PERSPECTIVE

STRUCTURES OF THE KAISER COMPANY at Richmond, California

These structures, comprising a Warehouse, a Machine Shop, five Shipbuilding Basins and a Fitting Out Dock are the work of L. H. Nishkian, Consulting Engineer for the Kaiser Company. The three pictures on the front outside cover, from left to right, are: (1) the Outfitting Dock, (2) the Machine Shop, and (3) the Shipbuilding Basins. It is all but impossible to present any adequate pictorial presentation of the enormous development of shipyard construction and activities, especially those of the Kaiser Plant at Richmond, but these pictures and outline may throw some light on the situation.

The Warehouse is 140 feet by 260 feet in size, is at present four stories high, and has been designed for a future fifth story. The construction is reinforced concrete, the interior being an 11-inch thick flat slab with 20-foot square panels. There is a canopy at the elevation of the first floor above the ground level which extends 10 to 12 feet from the building. The roof is of temporary wood construction due to the fact that a future floor is contemplated at some further date. The footings are partly spread footings and partly caissons. The elevation was suggested by M. N. Wortman and Architect E. Cerruti of the Kaiser Co.

The Machine Shop (center illustration on cover) is 110 x 340 feet with 160 feet of craneway extending beyond the building. The ground floor is a flat slab of varying thickness supported on piles. The roof is supported by rigid frames of structional steel at 20 feet centers. The main bay is 60 feet wide and 45 feet high and there are side bays of 25 feet width. The walls are of corrugated iron. The footings are a combination of spread footings, concrete piles and caissons.

The view of the basins (right-hand illustration on cover) is from the outside showing the removable steel gates. There are five basins 100 feet by 600 feet by 28 feet high, with 34-foot wide piers between them. The ships are built in the basins which are flooded by removing the steel gates, thus allowing the water to enter and float the ships. At present it takes two hours to drain a basin after the ship has been launched and the steel gates replaced. It is now proposed to deepen two of the basins 12 feet to allow repair work to be done on ships larger than the basins were built to accommodate, and at the same time to decrease the time of draining to 45 minutes.

The fitting out dock (left illustration on cover) is "L" shaped and has a total length of approximately 2370 feet. The original width was 46'-4" but most of it has since been widened by an additional 66'-8". The original 46'-4" width was of 12" thick

flat slab construction, the panels being 12 x 16 feet; 34 inch by 88 inch girders at 32' centers run the length of the dock supporting the gantry cranes which operate on the dock, and also supporting the flat slab. The girders span 36 feet between supports. The original dock is supported on concrete piles and caissons. The addition to the dock is an 8" thick flat slab with 10 foot square panels and is supported on wood piles.

NEW AIR CONDITIONING BOOKLET

How to plan post-war air conditioning to control temperature and humidity, clean the air, and provide adequate ventilation and air circulation is discussed in a new 16-page illustrated booklet, which also tells how air conditioning works, outlines the principal factors which must be considered to plan air conditioning for a specific application, and pictures and describes equipment including compressors, condensers, units and coils.

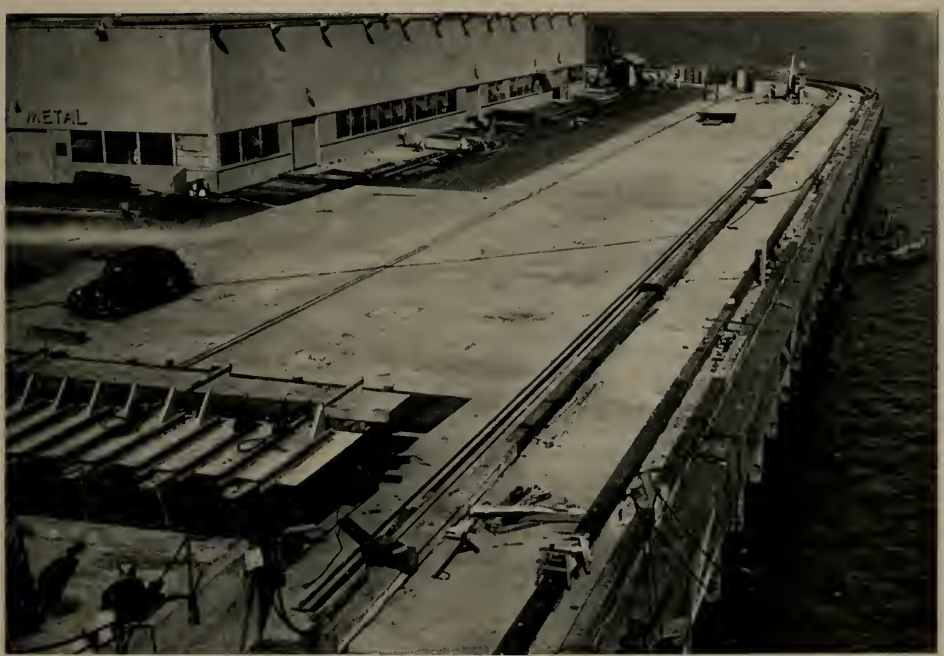
Copies of the new booklet "How to Plan Your Post-War Air Conditioning Today" may be secured from: WESTINGHOUSE ELEVATOR COMPANY, Jersey City 4, N. J.

POST-WAR HIGHWAYS BILL NEEDED

Highway construction can be an important factor in stimulating business activity and spreading employment after the war, the Associated General Contractors of America declared in urging early enactment of the post-war highway bill now pending in Congress.

Economic and statistical analyses of highway construction expenditures show road building creates jobs, not only at the site of construction, but also spreads employment through various industries. A study made by the Public Roads Administration shows that highway construction proposed would furnish annual employment for approximately 62,470 persons for each annual expenditure of $100,000,000 in the post-war period.

Early enactment of the post-war highway bill was needed in order to expedite the completion of plans for the State programs, according to statistics in the survey report by the Federal Works Agency, which show that State highway projects in the completed stage of planning total only $219,151,000, as compared with $957,242,000 in the design stage and $1,018,111,000 in the preliminary stage.



KAISER COMPANY—Portion of Richmond, California, Plant.

The warehouse, 140 feet by 260 feet, was designed for a fifth story.

View of the warehouse from a different angle.

NEWS AND COMMENT ON ART

(From Page 16)

Through the month of November the California Palace of the Legion of Honor will hold an exhibition of the paintings of RENOIR. The collection comprises about 35 paintings executed in the period 1860 to 1918. These canvases were lent to this exhibition by some of the leading museums and art galleries throughout the United States and by private lenders, among whom were Mr. William W. Crocker of San Francisco, Mr. Edward G. Robinson and Mr. and Mrs. George Gard De Sylva of Hollywood, and many other art lovers. This exhibit promises to be a rare treat.

Another exhibit at the California Palace of the Legion of Honor that will be open during the first half of November and perhaps longer is the Abbott Collection of Naval Aviation Paintings. This will include more than 100 paintings by seven distinguished artists, all of which work has been given to the Navy to become part of the Navy's permanent War Museum.

A proper and complete pictorial record of the naval and air activities of the first World War is sadly lacking, and it is to obviate the criticism of a similar lack during this war that this great task was assumed. Now there will be a permanent record, by excellent artists, of Naval Aviation upon which aeronauts of the future may look with a smile, but will surely envy.

Following are the artists and the subjects of their paintings:

HOWARD BAER. "WAVES" in Aviation.
ROBERT BENNY. Combat Operations.
ADOLF DEHN. Lighter Than Air.
DON FREEMAN. Pre-Flight.
JOSEPH HIRSCH. Primary and Intermediate.
GEORGES SCHREIBER. Primary and Intermediate.
LAWRENCE BEALL SMITH. Carrier Operations.

At the De Young Museum in Golden Gate Park, San Francisco, an exhibition of the work of Frans Rederer, a noted Swiss (now American) artist, is attracting considerable attention, and rightly so. His self-portrait in the "Meet the Artist" exhibition last year will be remembered by all who saw it for Mr. Rederer's free and forceful style is unforgettable. While his work is modern in feeling it also shows a thorough knowledge of the technique of the old masters.

Mr. Rederer first studied theology and prepared for the life of a missionary, but love of the arts slowly drew him through wood sculpture, printing, and acting to his final choice of painting. That his final choice was a good one is demonstrated by his exhibition.

Worthy of a visit by those who love the candor of caricature is the exhibition of the work of the Bolivian artist, Antonio Sotomayor, whose murals in the Peruvian Building on Treasure Island met with such favor. Many of Mr. Sotomayor's caricatures are really excellent portraits, although they resort to the form of exaggeration that is sometimes necessary to a presentation of individuality. Mr. Sotomayor's exhibition at the De Young Museum adjoins that of Mr. Rederer.

PORTLAND ART MUSEUM

In November two new exhibitions will be shown. The traveling exhibition arranged from the Second Annual Merchant Seamen's Art will receive a gala opening under auspices of Portland's Propeller Club. This exhibition touring the country was recently seen in San Francisco and Los Angeles.

The other exhibition is an excellent array of photographs showing the Belgian Congo at War.

WACS AT WORK

(From Page 18)

One of the most valuable contributions made by WAC's with the Medical Department of the United States Army is the return to health and self-confidence she can make possible for wounded and disabled soldiers as an Occupational Therapist or an Assistant. This is a technique that all women understand instinctively. Hers is the art of broadening horizons . . . of making men feel that a physical handicap does not render them useless or limit their activity.

Women are urgently needed to enlist for duty with the Medical Department and to be assigned to Occupational Therapy. To qualify, the duties of this assignment call for a pleasant, stable personality, a High School education, and a knowledge of one or more useful handicrafts. Those accepted must be between the ages of 20 and 50, having no dependents under 14 years of age.

There are many women who are qualified along these lines, but do not realize the need for their services in this important work of caring for our wounded men back from the battle fronts.

Further information may be obtained by applying at any U. S. Army Recruiting Office.

PETERSON AND SPACKMAN MERGE

Clarence O. Peterson and Wendell R. Spackman announce their association for the general practice of architecture with offices at 604 Mission Street, San Francisco 5, California.

A City Planning Program for San Francisco

By GEORGE S. HILL

In view of the fact that studies are being made for a master plan for San Francisco, and because of an increasing interest in city planning in order that we may be prepared for the peace that is to follow the war, it may be in order to recommend that the subject be considered somewhat in the following order, as suggested in the Hegemann report of Oakland and Berkeley.

1. Historical Landmarks
2. The Harbor
3. Railroads
   (a) Freight
   (b) Passenger
      Long Distance
      Suburban and Urban
4. Streets
   (a) Main Traffic Streets
   (b) Business Streets
   (c) Residential Streets
5. Parks and Playgrounds
6. Civic Art, Civic Centers

This program is simply that of considering first things first. In any city plan, all elements are so interdependent that the more difficult or the more inflexible parts must be given preference. Historical monuments and landmarks such, for example, as the Mission Dolores rightfully must be preserved. In some cases, however, monuments of lesser importance have stood in the way of progress and have been given an importance all out of proportion to their real worth.

The harbor of San Francisco is its main industry and in normal times a billion dollars worth of export and import business is done here. It is probable, if effective measures are taken to prevent waterfront strikes such as have occurred in the past, that San Francisco, following the war, will do a tremendous business with the Orient and the east coast of Africa. It is obvious that the city should own its own waterfront as all other Pacific Coast cities do.

San Francisco's harbor has one railroad, a very efficient belt line. It is so efficient in fact that with the growth of the port, the Embarcadero cannot be conveniently used by passenger vehicles and it will be necessary to elevate the drive as is done along the docks in New York City, or else establish a new wide street a block or so away from the waterfront.

The business of the port comes first.

On the official maps of San Francisco much of the land along the Bay is tide land, with basins and canals which exist only in imagination. Examples are India and South Basins in San Francisco, and San Mateo and Guadalupe Canals in San Mateo County. The basins in themselves are not objectionable provided they do not extend too far inland, but the canals are real or potential obstructions, and in the cases where they exist only on paper, if they could be eliminated, it would save thousands of dollars later.

For example, both Islais Creek and Channel Street are used very little except as open sewers. Sewage disposal plants could be built. Doubtless a survey would show that these "inland waterways" are not essential in a harbor of such vast proportions as San Francisco Bay. Already the throat or bottleneck at Third Street has demonstrated that other and wider bridges will soon be needed. Prevention is the best cure. The elimination of these open sewers may make it possible to use part of the Bay shore for an additional yacht harbor and recreation area as has been done in Chicago along the lake shore.

Although only one railroad now enters San Francisco by rail, an additional bridge at Hunters Point would make it possible for other lines to enter. Otherwise Oakland will become the transcontinental terminus. Unless there is more than one railroad entering San Francisco there is no necessity for a union station for transcontinental trains. A few minutes more or less is of little importance to one who has crossed the continent. He usually takes a taxi to his hotel or to the residential district. The commuter, on the other hand, wants to be delivered close to his place of business, hence the popular demand for a station near Market Street. This is wrong in theory because all commuters do not work within convenient walking distance from the terminal. The ideal arrangement is one which parallels the entire business district with through operation and a succession of stops. For example, the commuter from the Peninsula might work in the office buildings near the Ferry, or along Montgomery Street or at the Flood Building, or at the Civic Center, or in the rapidly expanding business district of the Mission. Central property is ill adapted to the storage of trains.

A very practical reason why the railroads should be considered before the streets is because the rail grade must be level or nearly so, and without sharp curves, while the street grades and alignment can be more readily adjusted to the conditions. While it is difficult to plan the street layout to conform with the railways it is next to impossible without extensive changes to plan the railways after the street layout is determined. Of course, it is best to consider all elements as part of one problem, including suburban and street railways and the highways and streets.

Peace Time Housing

Housing in the post-war period will be primarily a job for private enterprise and the responsibility for planning should rest with communities themselves, according to National Housing Administrator John B. Blandford, Jr.

The main post-war undertakings of the Federal Government in relation to housing should be in a fiscal, insurance and credit framework, with any aid given to publicly financed housing made a part of "the whole housing picture," Mr. Blandford says.

"If our housing future is shaped in these terms, a program of 1,000,000 to 1,500,000 houses a year for a ten to twenty-year period, becomes clearly an attainable goal," he added. "This might mean a capital investment, preponderantly private, running up as high as $8,000,000,000 a year and a volume of employment running up to 4,000,000 or 5,000,000 workers—taking no account of the indirect economic benefits of such a program."

Mr. Blandford says the National Housing Agency is still concentrating on its war job, and that the experience gained in the task has helped clarify thinking on post-war policies. He feels that Federal programming of war housing is essential, but, he says, "I want to state definitely that the NHA does not regard the war experience as any guide whatsoever as to the relative amounts of private housing and public housing that should be built. During the war, private enterprise provided about half of the new construction. But in the few years before the war, more than 95 per cent of all the housing in the country was privately financed. The NHA is confident that the post-war situation will be very much more like the pre-war situation than like the situation during wartime.

"We believe that this is in accord with the peacetime capacities of private enterprise and the peacetime needs of the country. More than that: we may find, when peace comes, that lower income groups than ever before may be served by private enterprise, through new methods, and through types of aid not yet utilized, but still representing smaller governmental commitments than public housing.

"Undoubtedly, for the lowest income groups and for some of the slum clearance jobs, public aid in whatever forms prove most desirable will continue to be necessary to carry forward a balanced housing program for all groups. But . . . we do not believe that public housing is a part of public works. We believe that determinations with regard to public housing should be co-ordinated with the stimulation and encouragement of private housing—and that the two must be handled together, insofar as activities of the Federal Government are concerned.

"We believe also that any public housing after the war should be local projects, with maximum feasible local aid, representing maximum feasible community agreement, and with only such Federal aid as is necessary to serve the need. Even where the Government extends aid to housing in the form of mortgage insurance, or loans, or other forms of aid, the Government should not involve itself in determining peacetime community housing needs. These needs should be worked out at the community level, through the voluntary co-operation of all groups in the community interested in housing—builders, real estate people, labor organizations, consumer and local public agencies."

MODERN ARCHITECTURE IN THE GOTHIC MOOD

(Continued from Page 21)

tangible feeling that some people experience when they see a structure that is replete with propriety and feeling. This is what he wrote:

> "Did I ever mention a certain theory I have about architecture: how I believe that the results which we now reach so painstakingly by training in taste and appreciation of tradition and feeling will some day be known as an exact science—some law of physics? The sort of thing one gets in the Redwood groves — sound absorbed in silence; but a living silence of balance of solids and space which produces a certain pitch which somehow frees the spirit, giving the feeling of ecstasy which makes one feel open to God.
>
> "A cathedral built in the great tradition of its own faith has that same pitch. In many shrines and churches in many countries I have sensed the lack of it physically, even before I could appreciate the incongruity of insincerity and faking which had blocked it. Two horrible examples: the four lead figures depicting the seasons, marking the enclosure at the feet of the jade Buddha in Bangkok, and a plump Victorian carving replacing the Grinley Gibbons screen in one of Wren's little churches in the city. I suppose it is all a matter of wave lengths."

Most people have experienced, at one time or another, this feeling of being "open to God". Sometimes it is on the shore of the sea, at others it may be while threading the tree-lined aisles of a mighty forest. Some will feel it as they contemplate the Taj Mahal, others as they stand before the Madeleine in Paris, but it is unmistakable. That many will experience that feeling on entering the tower of the Grace Cathedral in San Francisco is unquestioned.

The Government The Architect and The People

By JAN REINER

Too many people, newspapers, and magazines concern themselves with the "individuality" of a house, and overlook that the real mission of contemporary architecture is to raise the standard of dwelling for as many people as possible. This could best be achieved by standardized mass production of houses.

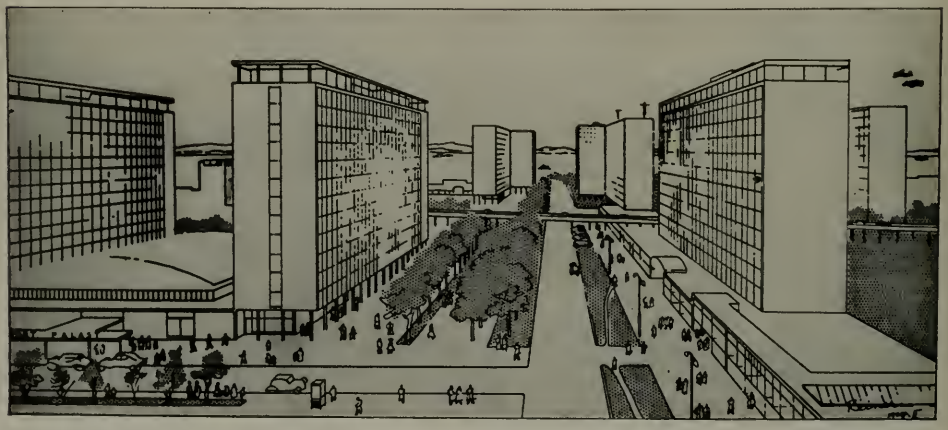
After the last war the converted war industries created a popular machine for transportation—an automobile; after this war, the converted industries should produce a popular, low-cost machine for living—a house.

For several decades much of our hardware, kitchen and bathroom fixtures, electrical and plumbing equipment, have been standardized, and from a standardization of smaller pieces it is relatively a small step to a standardization of larger pieces—rooms, for example. For years, Pullman railroad cars have been equipped with "roomettes"—prefab rooms stamped out by machine like an automobile body. Liberty ships are assembled of prefab sections, large cargo planes are built in a similar way, and we may hope that the post-war industries will get to a point where an assembly of prefab rooms into a "machine for living" will be possible.

The individuality of a post-war house should not suffer, for the architect will have at his command a world of new materials and forms. There will be plywood houses, metal houses, precast concrete houses, plastic houses, etc. These factory-made, fireproof houses will be better designed and better equipped than most of the present houses, and will be low-cost.

PEOPLE

The people should be made aware, interested and enthusiastic about the new ways of building houses, and about the new ways of planning communities. The people must know that there is a way of planning or replanning their communities



THE OSLO PROJECT

whereby every one of their dwellings can receive more space, more air, more sun, and a pleasant view; that parks, playgrounds, schools, and shopping and community centers may be located in their neighborhoods. They also must know that traffic can be so organized that it will cease to be a public menace.

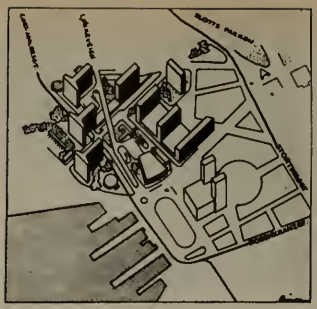
This unquestionably is a big task, but one which can be solved, and one which indeed has successfully been solved in some parts of this "one world."

There are three means to help the architect-planner to tackle this task: 1) Schools, 2) Civic groups, and 3) Political action.

SCHOOLS

Schools of architecture could become creative laboratories for regional and national planning, where ideas are born, crystalized and channeled into comprehensive schemes. Their work eventually could be of service to civic groups and the government.

Architecture should not be taught as a profession de luxe; it should be made clear to the students that architecture is a social art which should serve all parts of society. Teaching of history of architectural styles could be stripped to the minimum, and replaced by sociology, economics, and public administration.



OSLO PROJECT

A competition design for a new business district for Oslo, Norway designed by Jan Reiner in 1937. Eight tall office buildings and one large theatre are grouped around a proposed elevated speedway leading toward to newly built City Hall, and having the historic fortress Akershus as its vista.

The 12-story high buildings, properly oriented toward the sun, are widely spaced to allow an ample view toward Oslo-fjord. Between the tall office buildings are low structures containing retail and department stores. A dome-like caffe is near the waterfront. Most of the walks for pedestrians are separated from the speedy traffic; note the elevated parkings from which there are direct connections to office buildings. City planning principles described in this article are applied in this project.

THE OSLO PROJECT

Jan Reiner, the author of this article, is known in the Bay Area for his lectures and articles on modern architecture and furniture. He recently spoke at the San Francisco Museum of Art, and this article is a review of his speech. Projects and articles by Jan Reiner may be found in various European and American magazines.

What the post-war architect-planner needs is not only his technical and artistic skill, but an overall picture of a social order, and to know what part he is to take in it. It is not up to the architect to formulate social, economic, and political ideas of a region, any more than it is to an economist to formulate a city planning layout.

However, an architect-planner should be familiar with the work of his contemporary economist, sociologist, social worker, etc.

CIVIC GROUPS

Civic groups and labor unions, together with newspapers, radios, and magazines, can do an enormous amount of good work. They can mold public opinion and taste, and make people conscious of the advantages of large-scale planning; they can organize popular lectures, traveling exhibits, print pamphlets, or even promote the building of model neighborhoods.

It is understood, however, that these groups should be guided by unselfish and farsighted planners rather than by people whose income is from crowded slums, or people hostile to contemporary ideas.

One might also mention here the "neighborhood planning" promoted by various large concerns, insurance companies, for example; sometimes these concerns are more interested in higher rents than in higher standards of dwelling. To be sure, they too, hire architects to "plan" the neighborhood, but perhaps one might clarify—they hire professional "appeasers" instead of professional planners.

LEGISLATIVE

The good work done by schools and private and civic groups should be welcomed by the legislature and supported by an up-to-date building code. A new land-use-control is necessary to enable a planning commission to rebuild certain portions of our communities.

This is particularly necessary for larger cities where the down-towns are encircled by blighted areas sometimes more than a mile wide. To widen a street, or to plant a tree here and there is not necessarily city planning; nor does city planning mean the building of satelite communities around a decaying downtown which because of its high property value is left untouched.

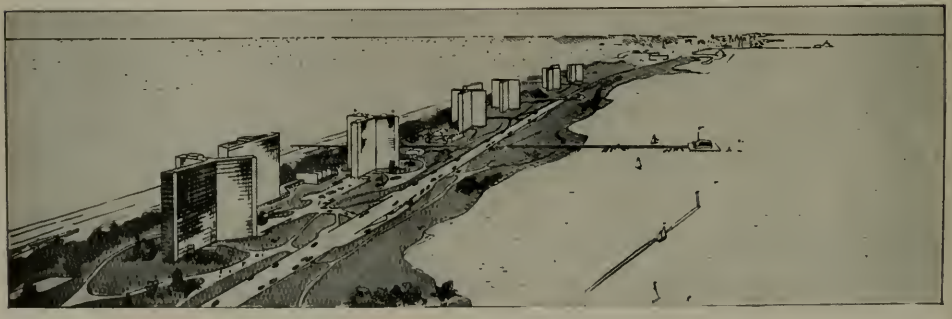
In some cases these satelite communities do not offer the much wanted country-life; they usually make the commuting longer, and at the same time boost city taxes for those who remain to live in the cities.

Instead of building more satelite communities, let us establish and enforce by law a land-use-control which could properly estimate the land value (not the price of one lot) then let us replace the crowded slums by reasonably tall fireproof apartment houses widely spaced in a common park.

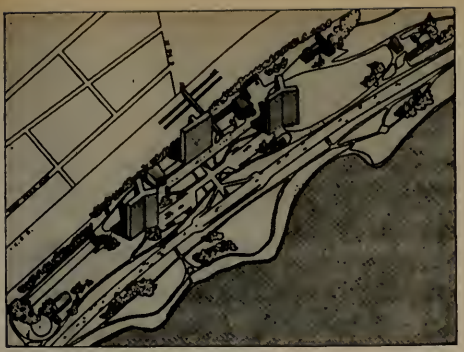
I am well aware of the tremendous technical, legal, and administrative difficulties involved in such an undertaking, but I am also well aware of the social and financial benefits that may be shared by the inhabitants as well as the owners of planned communities.

COMMUNITY

In a planned community the houses and apartment houses are properly oriented toward the sun, view, and each other.



Proposed residential neighborhood for Chicago designed by Jan Reiner in 1940 consists of three groups of apartment hotels, 20 stories high, and spaced in an existing park.



Another view of proposed residential neighborhood as planned by Jan Reiner.

A well kept park containing recreational facilities is at a walking distance from each dwelling. Imagine what closer contact with Nature could do for people—children as well as adults!

In the old days almost every city had its park called the commons. It was used for public gatherings, games and celebrations; it somehow bound the community together. As the communities grew in population and the buildings encroached upon the commons, nothing was left but a "cafe" with a juke box, glaring light and cigar smoke.

We have lost contact with Nature. We have to travel to see Nature on Sundays and Holidays. In the future, one of our most important tasks should be to bring Nature back into the cities.

The present street, which often is a canyon of noisy traffic, should be segregated into walks for pedestrians planned in a park-like manner through the city grounds, and separated from speedy traffic, which, where possible, should run on elevated highways. Properly sized and spaced roads and parkings for surface and air traffic would eliminate the traffic congestions.

Traffic, for the first time in the history of city planning, could cease to be a public menace, and yet be within easy reach from each dwelling, office and factory.

Schools and nurseries combined with recreational and medical facilities could be located in the common park in each neighborhood unit. Even in the poorest neighborhoods (should there still be some in the economy of abundance) the children should not "play" on the streets.

What a good school means to the children, a well organized community center could mean to the adults.

The community center, together with the shopping and administration center, restaurants, auditorium, hotels, branch library, etc., should be located near the center of each neighborhood. This center should be accessible both by the pedestrian walks and the traffic.

Industrial zones, planned according to production, traffic, prevailing wind, should be separated from residential zones by parks, but still be within reasonable distance.

Electricity can make the industries as well as the cities smokeless.

PLANNING

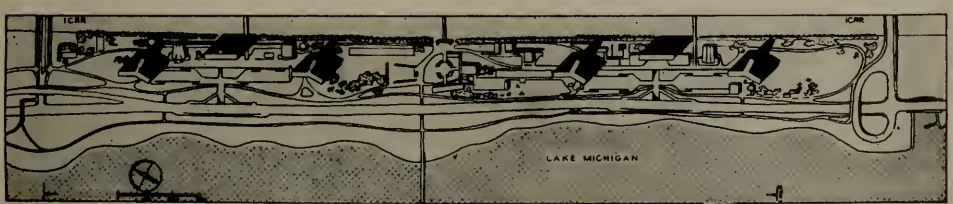
For the past two decades, organized community planning was welcomed in many European countries, especially in Russia.

There is a great deal of interest in city planning in present-day England; it is interesting to follow the architectural battles over the future plans of some English cities—London in particular.

In the United States a great many new communities were built around the war industries. While some of these are temporary and far from beautiful, their basic planning—namely the balance between dwelling, work, recreation and transportation—is sound and should be taken over by private and public interests after the war.

When building materials and funds will again be available organized planning should have preference over any other "planning".

Today, when victory is nearer and when millions hope for a better society, we should think of the new environment—the new community—in which this society will live. Organized planning should concern the Government, the architect, and the people.



Smaller buildings accommodating stores, clubs, movies, schools and kindergartens are scattered between the tall structures, with lake, park and sports within reach of each dwelling.

YOUR Country

Is
still
at
WAR

are
You?

BUY AT LEAST ONE EXTRA
$100 War Bond

ARCHITECT AND ENGINEER

PRODUCERS' COUNCIL PAGE

Northern California Chapter
The National Organization of Manufacturers of Quality Building Materials and Equipment
Affiliated with the AMERICAN INSTITUTE OF ARCHTECTS

TOM ROLPH

Among its many "firsts," Northern California is the first . . . and so far, only Chapter to have its own Representative in Washington. And Tom Rolph, brother of "Sunny Jim," fills that place of distinction. Tom, whose firm of Rolph, Mills and Co., represents The Master Builders Co., in this area, was Vice-President of the Chapter back in 1939.

Tom has been actively engaged in the building industry since 1908. Prior to starting his own business in 1912, he was Secretary of the Pacific Rolling Mill Co., structural steel fabricators.

Tom has represented one of the two Congressional Districts in his native city of San Francisco since January 4, 1941. And that goes for his Council Chapter too. After all these years Tom never fails to attend our meetings whenever he is in the City.

Tom relaxes from politicking by angling for trout.

We Can Be Proud of a healthy, active organization in the new Oregon Chapter at Portland. On hand for the Charter presentation were Ray Kingsland, George Quamby and Chuck Kraft, all of whom were pleased that we were able to round out the Pacific Coast Chapter picture.

Chuck Kraft has been appointed a member of the Sub-Committee on Modular Products of the Producers' Council, Inc. Chuck talked on Modular Planning in Los Angeles on the 15th and 16th of this month before the California Building Contractors Association and Annual Meeting of the Southern California Chapter of the Producers' Council.

FRED REIMERS

AIA - Producers' Council Joint Technical Committee for the two Northern California Chapters have been announced by Presidents Eldridge Spencer and George Quamby, respectively. For the AIA, Fred Reimers, Chairman, Jeff Bangs and Bill Knowles. For the Council, Chuck Kraft, Chairman, Ray Brown and Ken Pinney.

First Effort of the new Joint Technical Committee is a coordinated display of Modular Planned products at the State Association of California Architects Convention in San Francisco and a presentation and discussion of the relationship between Modular Planning and Architectural Design.

Architects and Engineers are asking for more specific information on materials and equipment that will be available for postwar construction and which can be embodied in working drawings and specifications now being prepared, the Council tells us. That's a very good sign indicating that the industry is getting down to cases.

Architect members of the National Joint A. I. A. - Producers' Council Technical Committee recently suggested that we advise the designer concerning:

(1) Pre-war products that will be available in previous or improved form;

(2) New building products on which adequate design, application and performance data are available.

(3) The specific exclusion from such information of proposed products on which adequate design and performance data have not been accumulated.

The Council member can be more appreciative of his membership than ever and his record of dependability. The Architect is not inclined to experiment on a commercial scale with products and gadgets "out of this world".

BOOK REVIEWS

THE TECHNIQUE OF THE TERRAIN. Edited by H. A. Musham. Reinhold Publishing Corp, 330 West Forty-Second St., New York. Price $3.50.

Most of us are weary of war and all things military and the title of this extremely interesting and useful book has a tendency to discourage anyone who is not looking for a light on some military question or problem. The fact of the matter is that there is more of interest to the layman than to the militarist.

Such common problems as how to tell the general direction of North by consulting the face of a watch, the location of the North Star from the Great Dipper, and the general explanation of the different projections used in various world and continent maps is of real interest to most laymen.

But there are three professions that will find the contents of this small book not only of ordinary interest but technical and scientific interest and help as well. These professions are surveying, city planning and land subdivision.

Use of the topographical survey and the aerial photograph is well explained and would be of inestimable value to land and city planners. The landscape architect is lost without proper topographical maps and this book explains their preparation and use clearly.

Unlike many books of the kind it is well illustrated, something that is essential in a book dealing with maps, surveys and aerial photographs.

It is a book of value to almost any man, even if he never saw a gun.

BLUEPRINT READING FOR THE BUILDING TRADES. By Joseph E. Kennedy. McGraw-Hill, Inc., N. Y., 1944. 101 Pages 9 x 12, 39 illustrations. $2.00.

There are two ways to learn how to read blueprints. One is by doing them, the other, a more uncertain method—by gaining as it were a reading knowledge of conventional representation. The latter way largely depends on the individual aptitude and temperament. Through his thoroughly new basic book, Mr. Kennedy, the author, utilizes the interesting question-answer approach to succeed in the second method of learning blueprint reading.

In finding the answers to questions, the student must examine the blueprint very carefully, referring to plan, elevation and section **in combination.** Thus he learns the fundamental lesson that he cannot find the information in full on the plan, elevation, or section alone.

While the book is intended for the building trades to assist in teaching blueprints to apprentices and journeymen, the architects could recommend it as required reading to others. Any one of us architects must have had the disheartening experience of dealing with clients who just couldn't learn to read blueprints as compared with those who at the start of the job would put their knowing finger on the blueprint line and move about in the spacial arrangements as if in their natural habitat.

The author based the book on his office experience together with several years of teaching at the trade and university levels. He says that blueprints call for no extensive education to read them and adds that building material salesmen, real estate operators and college students may find the book helpful.

Don't look now, but I am sure I saw a drafting error on page 13, third line up, in showing a common bond 8-inch brick wall.—M. G.

IN THE NEWS

SOFT DRINK INDUSTRY TO EXPAND

Another addition to the growing list of post-war opportunities for architects may be found in the soft drink industry's estimate that more than 2,000 new bottling plants will be constructed soon after the war by present members of the industry.

"In submitting data for the survey, many soft drink manufacturers requested the association office to provide the names of architects and engineers familiar with beverage plant construction," said John J. Riley, secretary of the American Bottlers of Carbonated Beverages, national trade association of the soft drink industry.

"Those architects interested in establishing contact with prospective builders of soft drink plants are being invited to write to the A.B.C.B., 1128 Sixteenth Street, Washington, D. C.," Mr. Riley added.

MR. KEPLAR B. JOHNSON has moved from 503 North Laurel Canyon, Los Angeles, to 10506 Ilona Avenue, in the same city.

A. B. BANOWSKY

A. B. Banowsky, for thirteen years associated with the United Gas System, a natural gas utility operating in Texas, Louisiana and Mississippi, and for six years its commercial and industrial sales manager, has been appointed manager, Retail Division, Payne Furnace & Gas Supply Co., Inc., with headquarters at "Payneheat's" general offices in Beverly Hills, it was announced by E. L. Payne, president.

ARCHITECT AND ENGINEER

Estimator's Guide

Giving Cost of Building Materials, Etc.

AMOUNTS GIVEN ARE FIGURING PRICES AND ARE MADE UP FROM AVERAGE QUOTATIONS FURNISHED BY MATERIAL HOUSES TO SAN FRANCISCO CONTRACTORS. 2½% SALES TAX ON ALL MATERIALS BUT NOT LABOR

All prices a..d wages quoted are for San Francisco and the Bay District. There may be slight fluctuation of prices in the interior and southern part of the state. Freight cartage, at least, must be added in figuring country work.

BONDS—Performance—50% of contract.

Labor and materials—50% of contract.

BRICKWORK—

Common Brick—Per 1M laid—$50.00 to $60.00 (according to class of work).

Face Brick—Per 1M laid—$120 to $150 (according to class of work.)

Brick Steps—$1.60 per lin. ft.

Brick Veneer on Frame Bldg.—Approx. $1.30 per sq. ft.

Common Brick—$19.00 per M, truckload lots, f.o.b. job.

$19.00 per M, less than truckload, plus cartage.

Face Brick—$40 to $80 per M, truckload lots, delivered.

Cartage—Approx. $4.00 per M.

BUILDING PAPER—

1 ply per 1000 ft. roll	$3.50
2 ply per 1000 ft. roll	5.00
3 ply per 1000 ft. roll	6.25
Brownskin, Standard, 500 ft. roll	5.00
Sisalkraft, 500 ft. roll	5.00
Sash cord com. No. 7	$1.20 per 100 ft.
Sash cord com. No. 8	1.50 per 100 ft.
Sash cord spot No. 7	1.90 per 100 ft.
Sash cord spot No. 8	2.25 per 100 ft.

Sash weights, cast iron, $50.00 ton.
Nails, $3.42 base.
Sash weights, $45.00 per ton.

CONCRETE AGGREGATES—

The following prices net to Contractors unless otherwise shown.

Gravel, all sizes—
$1.95 per ton at Bunker; delivered $2.50

	Bunker	Del'd
Top Sand	$1.90	$2.50
Concrete Mix	1.90	2.45
Crushed Rock, ¼" to ¾"	1.90	2.50
Crushed Rock, ¾" to 1½"	1.90	2.50
Roofing Gravel	2.25	2.80
River Sand	2.00	2.45

Sand—

River Sand	2.00	2.45
Lapis (Nos. 2 & 4)	2.85	3.15
Olympia (Nos. 1 & 2)	2.85	3.10
Del Monte White	.84c per sack	

Cement—

Common (all brands, paper sacks), carload lots, $2.42 per bbl. f.o.b. car; delivered $2.72.

Cash discount on carload lots, 10c a bbl., 10th Prox.; less than carload lots $3.20 per bbl. f.o.b. warehouse or delivered.

Cash discount 2% on L.C.L.

Atlas White, Calaveras White, Medusa White } 1 to 100 sacks, $2.50 sack warehouse or del.; $7.65 bbl. carload lots.

Forms, Labors average $200.00 per M.

Average cost of concrete in place, exclusive of forms, 35c per cu. ft.; $10 cu. yd.; with forms, 60c.

4-inch concrete basement floor ..... 30c per sq. ft.

Rat-proofing 7½c

Concrete Steps ..... $1.25 per lin. ft.

DAMPPROOFING and Waterproofing—

Two-coat work, $3.50 per square.

Membrane waterproofing—4 layers of saturated felt, $7.00 per square.

Hot coating work, $2.50 per square.

Medusa Waterproofing, $3.50 per lb. San Francisco Warehouse.

Tricocel waterproofing.
(See representative.)

ELECTRIC WIRING—$12 to $15 per outlet for conduit work (including switches).

Knob and tube average $3.00 per outlet. (Available only for priority work.)

ELEVATORS—

Prices vary according to capacity, speed and type. Consult elevator companies. Average cost of installing a slow speed automatic passenger elevator in small four story apartment building, including entrance doors, about $6500.00.

EXCAVATION—

Sand, 60 cents; clay or shele $1 per yard. Teams, $12.00 per day.

Trucks, $22 to $27.50 per day.

Above figures are an average without water. Steem shovel work in large quantities, less; hard material, such as rock, will run considerably more.

FIRE ESCAPES—

Ten-foot galvanized iron balcony, with stairs, $150 installed on new buildings; $160 on old buildings.

FLOORS—

Composition Floor, such as Magnesite, 33c to 50c per square.

Linoflor—2 gages—$1.25 to $2.75 per sq. yd.

Mastapay—90c to $1.50 per sq. yd.

Battleship Linoleum—available to Army and Navy only—⅛"—$1.75 sq. yd. ⅜"—$2.00 sq. yd.

Terazzo Floors—50c to 70c per square.

Terazzo Steps—$1.75 per lin. ft.

Mastic Wear Coat—according to type—20c to 35c.

Hardwood Flooring—
Standard Mill grades not available.

Victory Oak—T & G	
²⁵/₃₂ x 2¼"	$143.25 per M. plus Cartage
½ x 2"	122.00 per M. plus Cartage
½ x 1½"	113.50 per M. plus Cartage
Prefinished Standard & Better Oak Flooring	
²⁵/₃₂ x 3¼"	$180.00 per M. plus Cartage
½ x 2½"	160.50 per M. plus Cartage
Maple Flooring	
²⁵/₃₂" T & G Clear	$160.50 per M. plus Ctg.
2nd	153.50 per M. plus Ctg.
3rd	131.25 per M. plus Ctg.

Floor Layers' Wage, $1.50 per hr.

GLASS—

Single Strength Window Glass	20c per □ ft.
Double Strength Window Glass	30c per □ ft.
Plate Glass, under 75 sq. ft.	$1.00 per □ ft.
Polished Wire Plate Glass	1.40 per □ ft.
Rgh. Wire Glass	.34 per □ ft.
Obscure Glass	.27 per □ ft.

Glazing of above is additional.
Glass Blocks ..... $2.50 per □ ft. set in place

HEATING—

Average, $1.90 per sq. ft. of radiation, according to conditions.

Warm air (gravity) average $48 per register.

Forced air, average $68 per register.

IRON—Cost of ornamental iron, cast iron, etc., depends on designs.

LUMBER—All lumber at O.P.A. ceiling prices—

No. 1 Common	$49.00 per M
No. 2 Common	47.75 per M
Select O. P. Common	52.75 per M

Flooring—

	Delvd.
V.G.-D.F. 8 & 8tr. 1 x 4 T & G Flooring	$80.00
C 1 x 4 T & G Flooring	75.00
D 1 x 4 T & G Flooring	65.00
D.F.-S.G. 8 & 8tr. 1 x 4 T & G Flooring	61.00
C 1 x 4 T & G Flooring	59.00
D 1 x 4 T & G Flooring	54.00
Rwd. Plastic—"A" grade, medium dry	82.00
"B" grade, medium dry	78.50

Plywood—

	Under $200	Over $200
"Plyscord"—3/8"	$49.50	$47.55
"Plywell"—1/4"	45.15	43.30
3 ply—2/s—1/4"	48.55	46.60
"Plyform"—5/8"—		
Unoiled	126.50	121.45
Oiled	127.90	122.75

Above prices delivered if quantity is sufficient to warrant delivery.

Shingles (Rwd. not available)—

Red Cedar No. 1—$6.75 per square; No. 2, $5.75; No. 3, $4.45.
Average cost to lay shingles, $3.00 per square.
Cedar Shakes—Tapered: 1/2" to 3/8" x 25"—$8.95 per square.
Resawn: 3/4" to 1 1/4" x 25"—$10.65 per square.
Resawn: 3/4" to 1 1/4" x 25"—$10.65 per square.
Average cost to lay shakes, $4.00 per square.

MILLWORK—Standard.

O. P. $100 per 1000. R. W. rustic $100.00 per 1000 (delivered).
Double hung box window frames, average with trim $6.50 and up, each.
Complete door unit, $10.00.
Screen doors, $3.50 each.
Patent screen windows, 25c a sq. ft.
Cases for kitchen pantries seven ft. high, per lineal ft., $9.00 each.
Dining room cases, $9.00 per lineal foot.
Rough and finish about 80c per sq. ft.
Labor—Rough carpentry, warehouse heavy framing (average), $40.00 per M.
For smaller work average, $40.00 to $55.00 per 1000.

MARBLE—See Dealers)

PAINTING—

Two-coat work	per yard 50c
Three-coat work	per yard 70c
Cold water painting	per yard 10c
Whitewashing	per yard 8c

PAINTS—

Two-coat work	50c per sq. yd.
Three-coat work	70c per sq. yd.
Cold water painting	per yard 10c
Whitewashing	8c per sq. yd.

Turpentine $1.03 per gal. in drum lots. $1.08 per gal. in 5-gal. containers.
Raw Linseed Oil—not available.
Boiled Linseed Oil—$1.38 per gal. in drums. Available only to work with high priority—$1.48 per gal. in 5-gal. containers.
Use replacement oil—$1.86 per gal. in 1-gal. containers.
Replacement Oil—$1.20 per gal. in drums. $1.30 per gal. in 5-gal. containers.
A deposit of $6.00 required on all drums.

PATENT CHIMNEYS—

6-inch	$1.20 lineal foot
8-inch	1.40 lineal foot
10-inch	2.15 lineal foot
12-inch	2.75 lineal foot

PLASTER—

Neat wall, per ton delivered in S. F. in paper bags, $17.60.

PLASTERING (Interior)—

	Yard
3 Coats, metal lath and plaster	1.50
Keene cement on metal lath	1.80
Ceilings with 3/4 hot roll channels metal lath (lathed only)	1.20
Ceilings with 3/4 hot roll channels metal lath plastered	2.20
Single partition 3/4 channel lath 1 side (lath only	1.20
Single partition 3/4 channel lath 2 inches thick plastered	3.20
4-inch double partition 3/4 channel lath 2 sides (lath only)	2.20
4-inch double partition 3/4 channel lath 2 sides plastered	3.85
Thermax single partition; 1" channels; 2 1/4" overall partition width. Plastered both sides	3.30
Thermax double partition; 1" channels; 4 3/4" overall partition width. Plastered both sides	4.40
3 coats over 1" Thermax nailed to one side wood studs or joists	1.65
3 coats over 1" Thermax suspended to one side wood studs with spring sound isolation clip	1.90

Note—Channel lath controlled by limitation orders.

PLASTERING (Exterior)—

	Yard
2 coats cement finish, brick or concrete wall	$1.00
3 coats cement finish, No. 18 gauge wire mesh	2.00

Lime—$3.00 per bbl. at yard.
Processed Lime—$3.10 bbl. at yard.
Rock or Grip Lath—3/8"—20c per sq. yd.
1/2"—19c per sq. yd.

Composition Stucco—$1.80 to $2.00 sq. yard (applied).

PLUMBING—

From $100.00 per fixture up, according to grade, quantity and runs.

ROOFING—

"Standard" tar and gravel, 4 ply—$8.00 per sq. for 30 sqs. or over.
Less than 30 sqs. $9.50 per sq.
Tile, $30.00 to $40.00 per square.
Redwood Shingles, $7.50 per square in place.

5/2 #1-16" Cedar Shingles, 4 1/2" Exposure	$8.00 square
5/8 x 16"—#1 Cedar Shingles, 5" Exposure	$9.00 square
4/2 #1-24" Royal Shingles, 7 1/2" Exposure	$9.50 square

Re-coat with Gravel $4.00 per sq.
Asbestos Shingles, $23 to $28 per sq. laid.

1/2 x 25" Resawn Cedar Shakes, 10" Exposure	$10.50
3/4 x 25" Resawn Cedar Shakes, 10" Exposure	11.50
1 x 25" Resawn Cedar Shakes, 10" Exposure	12.50

Above prices are for shakes in place.

SHEET METAL—

Windows—Metal, $1.75 a sq. ft.
Fire doors (average), including hardware $2.00 per sq. ft.

SKYLIGHTS—(not glazed)

Copper, 90c sq. ft. (flat).
Galvanized iron, 40c sq. ft. (flat).
Vented hip skylights 60c sq. ft.

STEEL—STRUCTURAL (None available except for defense work).

$150 ton (erected), this quotation is an average for comparatively small quantities. Light truss work higher. Plain beams and column work in large quantities $140 per ton.

STEEL REINFORCING (None available except for war work).

$150 to $200 ton, set.

STONE—

Granite, average, $6.50 cu. foot in place.
Sandstone, average Blue, $4.00. Boise, $3.00 sq. ft. in place.
Indiana Limestone, $2.80 per sq. ft. in place.

STORE FRONTS (None available).

TILE—

Ceramic Tile Floors—70c to $1.00 per sq. ft.
Cove Base—$1.10 per lin. ft.
Glazed Tile Wainscot—$1.25 per sq. ft.
Asphalt Tile Floor 1/8" & 3/16"—$ .18 to $ .35 per sq. ft. Light shades slightly higher.
Cork Tile—$ .40 to $ .75 per sq. ft.
Mosaic Floors—see dealers.
Lino-Tile, $ .35 to $ .75 per sq. ft.

Wall Tile—

Glazed Terra Cotta Wall Units (single faced) laid in place—approximate prices:

2 x 6 x 12	$1.10 sq. ft.
4 x 6 x 12	1.25 sq. ft.
2 x 8 x 16	1.20 sq. ft.
4 x 8 x 16	1.40 sq. ft.

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40c per square foot and up. Installation extra.

WINDOWS—STEEL—

30c per square foot, $5 for ventilators.

POST-WAR HOUSES TO COST LITTLE

The need for housing seems "astronomical." One million housing units will be required annually for ten years or longer after the war, if we as a nation are to meet the needs for housing.

These figures are not mere guesses, but are based upon long-term studies which clearly establish the following facts: First, the net increase of new families that come into being annually in the United States is approximately 500,000. Second, the number of houses destroyed by fire, tornadoes and other catastrophes or razed because of total obsolescence every year averages about 400,000.

Most new homes that begin springing up when peace comes will not be radically different from those built just before the war. When the war ends, the crucial problem of all industry will be one of reconversion with minimum unemployment. Tools, techniques, production lines and tried materials can more easily be converted to these products than to wait for new tools, new techniques, new materials, new product developments and the many other changes that entirely new products would require. It is sound to anticipate that equipment and materials will be the same or similar to those with which we dealt in 1942. These may carry new dress, but fundamentally, 1942 products should be anticipated.

Many of the elements, materials and products pictured as "things of the future" will eventually become fact. The history of all products has been one of improvements through research and development—step by step.

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1944 BUILDING TRADES WAGE SCALES (JOB SITE) NORTHERN CALIFORNIA

Six- and seven-hour day eliminated on all Government Work. A. F. L. - O. P. M. Agreement calls for eight-hour day.

NOTE: Predeterminations by the Department of Labor, as of July 1 (the wage-freezing date) have not yet been made in all of the counties listed. The wage scales shown are those being paid and in effect mostly by agreement between employers and their union.

CRAFT	San Francisco	Alameda and Contra Costa	Fresno	Marin	Sacramento	San Jose	San Mateo	Vallejo	Stockton
ASBESTOS WORKERS	1.50	1.50	1.25	1.50	1.50	1.25	1.50	1.50	1.25
BRICKLAYERS	1.87½	1.87½	1.75	1.87½	1.75	2.00	1.79-1/6	1.75	1.50
BRICKLAYERS, HODCARRIERS	1.40	1.40	1.05	1.40	1.05	1.50	1.35	1.50	1.14
CARPENTERS	1.50	1.50	1.25	1.43¾	1.37½	1.37½	1.43¾	1.50	1.37½
CEMENT FINISHERS	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
ELECTRICIANS	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70
ELEVATOR CONSTRUCTORS	1.75½	1.75½	1.75½	1.75½	1.75½	1.75½	1.75½	1.75½	1.75½
ENGINEERS: MATERIAL HOIST	1.50	1.50	1.25	1.50	1.37½	1.62½	1.50	1.37½	1.25
PILE DRIVER	1.75	1.75	1.60	1.75	1.75	1.75	1.75	1.75	
STRUCTURAL STEEL	1.75	1.75	1.60	1.75	1.75	1.75	1.75	1.75	1.60
GLASS WORKERS	1.40	1.40	1.12½	1.40	1.12½	1.21	1.40	1.40	
IRONWORKERS: ORNAMENTAL	1.60	1.50	1.60	1.50	1.60	1.31¼	1.50	1.50	
REINF. RODMEN	1.50	1.50	1.60	1.50	1.50	1.60	1.50	1.50	1.25
STRUCTURAL	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.37½
LABORERS: BUILDING	1.00	1.00	.90	.87½	.95	.90	.93¾	.90	.90
CONCRETE	1.00	1.00	.90	.87½	.95	.90	.93¾	.95	1.00
LATHERS	1.75	1.75	1.50	1.75	1.60	1.75	1.75	1.75	1.75
MARBLE SETTERS	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
MOSAIC & TERRAZZO	1.25	1.25	1.12½	1.25	1.15-5/8	1.12½			
PAINTERS	1.50	1.50	1.28-4/7	1.50	1.43	1.50	1.42-6/7	1.64-2/7	1.37½
PILEDRIVERS	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54
PLASTERERS	1.75	1.83½	1.75	1.75	1.75	2.00	2.00	1.75	1.83-1/3
PLASTERERS' HODCARRIERS	1.50	1.60	1.40	1.50	1.18¾	1.50	1.75	1.50	1.50
PLUMBERS	1.70	1.70	1.53-1/8	1.70	1.68¾	1.62½	1.70	1.70	1.50
ROOFERS	1.50	1.50	1.25	1.37½	1.37½	1.37½	1.25	1.37½	1.37½
SHEET METAL WORKERS	1.50	1.50	1.50	1.50	1.50	1.50	1.37½	1.50	1.50
SPRINKLER FITTERS	1.58	1.58	1.53-1/8	1.70	1.68¾	1.62½	1.70	1.70	1.50
STEAMFITTERS	1.75	1.75	1.53-1/8	1.70	1.68¾	1.62½	1.50	1.70	1.50
STONESETTERS (MASONS)	1.87½	1.87½	1.50	1.75	1.75	1.50	1.75	1.75	1.50
TILESETTERS	1.50	1.50	1.37½	1.50	1.37½	1.50	1.50	1.50	1.37½

Prepared and compiled by

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with the assistance and cooperation of secretaries of General Contractors Associations and Builders Exchanges of Northern California.

IN THE NEWS

NEED MORE ARCHITECTS

Some of the post-war work that is being done in the office of State Architect Anson Boyd is the Stockton Hospital, $1,535,000; the Napa State Hospital, $4,420,000, and the Sonoma State Home, $400,000, making this small bite of the post-war plans in the State Architect office $6,355,300. Since this is only a start it is small wonder that State Architect Boyd is sending out S.O.S. messages for more architects.

L. H. NISHKIAN and FREDERICK R. HARRIS have been selected as structural engineers for the Bethlehem Steel Plant work at Twentieth and Illinois Streets, San Francisco.

OSCAR M. PRICE has moved from 1667 Short Street, Berkeley, to 2025 Tenth Avenue, Oakland.

HENRY H. GUTTERSON is back with us after a lengthy sojourn at Principia College in Illinois where he has been developing plans for the post-war construction program. Until he gets established again in San Francisco his residence at 2922 Garber Street, Berkeley, will be his address.

DON L. BRALEY has been appointed manager of the San Francisco distributing unit of UNITED STATES PLYWOOD CORPORATION. DON L. KESSELRING has been appointed manager of the Oakland unit. JOHN D. PATRIGUIN will be the resident manager in Fresno for the entire San Joaquin Valley.

TWENTY-FIVE LEADING CITIES on the Pacific Coast recorded a total of permit values of $15,-150,234 for the month of August, 1944, as against $13,831,215 for the same month of 1943, according to "WESTERN BUILDING."

HEAVY TIMBER CONSTRUCTION DETAILS

A letter was mailed recently to 1680 architects and engineers in the eleven western states by Alden K. Smith, Manager Western Service and Sales for Timber Engineering Company advising them of the availability of the booklet "Heavy Timber Construction Details," published by the National Timber Manufacturers Association.

Complimentary copy of this publication may be had upon request to Mr. Smith's office. Address is Monadnock Building, 681 Market Street, San Francisco 5, Calif. This booklet contains numerous sketches. In describing the extensive use of non-critical materials, timber connectors are making the mammoth trusses of wood supporting the roofs of many large wartime buildings possible.

NEW PUR-O-FIER FOR COMPRESSED AIR

A new purifier designed to eliminate free moisture, oil and all foreign matter with a heavier specific gravity than air from passing through the compressed air line has just been developed by the Bird-White Company, 3120 West Lake Street, Chicago.

Known as the Model A-1 Pur-O-fier, this new unit uses positive centrifugal action as a medium for purification. It operates with from 1 to 5 cubic feet of air. A unique feature of the unit is that it weighs only 1¼ lbs. and is just 3⅛ inches in diameter by 5-9/16 inches deep including plastic and transparent entrainment sump. No maintenance is required on the unit other than draining the sump which can be easily accomplished by opening the petcock in the bottom.

MILTON T. PFLUEGER has moved from 76 Greenwood Avenue, to 55 Northwood Drive, San Francisco.

SOULE' RESUMES STEEL WINDOW PRODUCTION

An important step in reconversion was revealed in the recent announcement by Edw. L. Soulé, president of Soulé Steel Company, that production is being resumed at once on center pivoted and projected industrial steel windows.

Shipments may be made by December 1 or possibly earlier, Soulé stated, orders being filled on priority ratings of AA-5 and higher in order of receipt.

Advice on specification and construction problems involving Soulé peacetime products is available from company sales engineers, the announcement stated.

NEW RENTAL DWELLINGS NEEDED AFTER WAR

A record-breaking number of new rental dwellings must be constructed after the war to meet the country's housing needs, despite the fact that the percentage of new post-war homes owned by the families occupying them will exceed the present ratio by a considerable margin, Irving W. Clark, chairman of the Residential Committee of The Producers' Council, stated.

"Whereas only about 38 per cent of all urban dwellings are occupied by their owners today, a greater proportion of the homes built after the war undoubtedly will be owner-occupied, in view of the fact that more families than ever before have saved enough money during the war to permit them to acquire homes," Clark said.

"However, reliable estimates indicate that the total number of new homes constructed during the first six post-war years will be larger than in any comparable period in the past, with the result that the number of

new rental accommodations also should reach a peak. Even if 45 per cent of the new dwelling constructed in the six years are occupied by the families owning them, it still would be necessary to build nearly 2,900,000 rental units to reach the total of 5,200,000 new homes which will be constructed in that period, according to a forecast by the Council's Market Analysis Committee.

"While a large segment of the American people aspire to home ownership and would rather own than rent their homes, there are also many families which are unable to purchase homes or else prefer not to do so, either because they do not intend to reside permanently in the present locality or for some other reason.

"To assure the construction of an adequate number of rental units, two steps should be taken promptly. In the first place, state legislation should be passed to permit direct investments in and ownership of rental housing by large lending institutions, such as life insurance companies, savings banks, and savings and loan institutions which at present are restricted for the most part to mortgage financing.

"Secondly, serious consideration should be given to legislation permitting the Federal Housing Administration to offer yield insurance on approved types of rental housing, as a means of encouraging a greater volume of such investments by individuals and by financial organizations."

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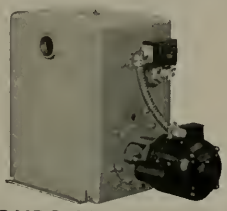

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Of the Architect and Engineer, published monthly at San Francisco, Calif., for October 1, 1944.

State of California } SS.
City and County of San Francisco }

Before me, a notary public in and for the state and county aforesaid, personally appeared L. B. Penhorwood, who, having been duly sworn according to law, deposes and says that she is the Business Manager of The Architect and Engineer, and that the following is to the best of her knowledge and belief, a true statement of the ownership, management (if daily paper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, as amended by the Act of March 3, 1933, embodied in section 537, Postal Laws and Regulations, printed on the reverse of this form, to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are:

Publisher, The Architect and Engineer, Inc., 68 Post St., San Francisco, Calif.

Editor, Mark Daniels, 68 Post St., San Francisco, Calif.

Managing Editor—None.

Business Manager, L. B. Penhorwood, 68 Post St., San Francisco, Calif.

2. That the owner is: (If owned by a corporation, its name and address must be stated and also immediately thereunder the names and addresses of stockholders owning or holding one per cent or more of total amount of stock. If not owned by a corporation, the names and addresses of the individual owners must be given. If owned by a firm, company, or other unincorporated concern, its name and address, as well as those of each individual member, must be given.)

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3. That the known bondholders, mortgagees, and other security holders owning or holding one per cent or more of total amount of bonds, mortgages, or other securities are: (If there are none, so state.)
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4. That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation, for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than of a bona fide owner; and this affiant has no reason to believe that any other person, association, or corporation has any interest direct or indirect in the said stock, bonds, or other securities than as so stated by him.

5. That the average number of copies of each issue of this publication sold or distributed, through the mails or otherwise, to paid subscribers during the twelve months preceding the date shown above is. (This information is required from daily publications only.)

L. B. Penhorwood, Business Mgr.

Sworn to and subscribed before me this 25th day of September, 1944.

(Seal) CHAS. F. DUISENBERG

Notary Public in and for the City and County of San Francisco, Calif.

(My commission expires May 22, 1945.)

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• ARCHITECT AND ENGINEER

Vol. 159 No. 2

ARCHITECTS' REPORTS—Published Daily

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★

Contents for

DECEMBER

LEONARDO DA' VINCI

ARTICLES AND MISCELLANEOUS TEXT

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RUNNING FIRE — by MARK DANIELS

FEAST OR FAMINE

That has been the lot of the architect for lo, these many years. For the past five years the latter has been about the only pedal played by the organist of fortune, but it looks as though the tune is going to change radically. From all the surveys, estimates and reports that come in from reliable authorities and sound, hard-headed business men it seems reasonable to predict that the architects are going to have a field day.

If that is the case, and I believe it is, the architects have more to do than sit around and wait for the golden harvest. Many offices have been reduced to a working force of one or two and others have been shaved down to a single room. In the meanwhile available assistance has been inducted into the military service, or scattered or moved or taken on other occupations and it will not be so simple as it seems to get organized again. Many will have to find new office space which, in itself is a task very like renting a residence. When the call comes it may be too late to find adequate space and light which is a problem that seems to be neglected by many. It is to be hoped that this time the architects will not be caught napping.

Last month one of San Francisco's talented architects was threatened with a very large job of designing and preparing working drawings for a project that would need about twenty draftsmen. The project was well financed but time was of the essence, although the plans would take about eighteen months for completion. When I last saw him he was looking for adequate office space, because this time he wanted a permanent location. They don't grow on trees.

THE DEAD LINE

The trials of editing any journal, and particularly professional and trade journals, are manifold. There are space problems, questions of propriety, types, captions to be decided and a flood of other major and minor considerations that must be decided. It is worse than trying to decide what to eat by reading over a long menu. But the worst problem to solve is how to get the authors of special articles to get their manuscripts in on time. Sometimes I think it is impossible. For instance, I seem never to be able to get the author of RUNNING FIRE to get his junk in before press time, the Bone Head.

FROZEN MUSIC

Architecture has been called "Frozen Music" so often and for such a long time that some students believe that they should take up the ukelele as a foundation upon which they might establish a knowledge of architecture. Heaven forbid that we should ever develop any method of preserving or perpetuating the sounds of a ukelele, but a knowledge of MUSIC, from the standpoint of composition, will be of help to any man in a line of artistic endeavor.

Whether it was Ruskin or Schelling or Madam de Stael who first likened architecture to "Frozen Music" is of little importance. It seems to me to be of more importance to determine just what they meant, particularly in the case of the last two named, since their statements were in a foreign language and had to be translated. Probably all of them found that the sight of a particularly beautiful architectural composition aroused in them the same emotion that was aroused by a particularly beautiful musical composition. That is logical, for who has not had the same experience? But, personally, I feel that all beautiful compositions arouse similar emotions. A beautiful poem, a great patriotic speech, a glowing essay may stir us deeply.

However, the principles of good musical composition do bear a closer analogy to those of architecture than do those of most of the arts. The balance of themes, the modulation from one theme to another, the climaxes and depressions in music can all be represented very clearly graphically.

If I can get this idea over, bring it to a reductio ad absurdum, my progeny may yet hear RUNNING FIRE called "Frozen Music," Rag Time, for instance.

THE WAC'S WORKS

Last month I was approached, mind you, approached, by an officer of the Women's Army Corps, Lieutenant Violetmay Clarke. The question was, would ARCHITECT AND ENGINEER devote a column or two to telling the public just what was the work of the Women's Army Corps. Some of us think that they only take care of the sick who are not watched over by the Red Cross. Some think they grease aeroplane axles and some think the work is that of taking care of nuts not found on aeroplane axles.

So, another question arose as to just what kind and how many kinds of work does the W.A.C. do? From there on the problem became purely an editorial one.

What should be the title of the article? The war department had ideas of their own. With a puffed-out chest I suggested "THE WAC'S WORKS" but it was thrown out in the snow. (I say snow to please the many in the War Department who still think it snows out here.) I still think the suggested title would have been O.K.

"POSTWAR BUILDING needs will present to this industry the greatest challenge it has ever known. We have got to be ready. We have got to have plans, if we are to turn wishful thinking into practical reality. And we can't start our preparation too soon. It's more than an opportunity. It's a responsibility we owe to our communities."

Postwar building history is being made *Now*

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- Electrical Wires
- Wire and Wire Products
- Sheet Piling
- Wire Rope
- Stainless Steel
- Fabricated Structural Work
- Nails

USS

ONE thing is certain, everyone importantly engaged in the building industry is becoming increasingly alert to the coming needs of peace. We see it in the projects already reduced to blueprints. We see it in the more and more frequent meetings of community Plan Boards.

Inevitably, the subject of materials comes up in this planning. Great and exciting progress has been made in their development. War has furnished the incentive to find new uses for the old. It has also brought forth some materials that are new which have yet to prove their worth.

Steel looms large, not only because its basic advantages, such as strength, endurance, fire and weather resistance have never been successfully challenged, but also because in its versatility, its variety in kind and form, its ease of fabrication in application with other materials, its practical uses are almost unlimited.

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"THE DOVES" by Adele Wayland

Adele Wayland is one of those few in these days of "Let George do it" who believe and practices the good old adage, "If you want a thing well done, do it yourself." In fact, she is so busy doing it herself that it is difficult to get in to her studio to watch her do it.

She makes her own glazes, models her own clay, often from life, operates her own kiln and, in fact, does everything except market her own product. All of which is some job when you produce such works of plastic art as her "Oriental Head" in biege crackle glaze and her "Flower Girl." Her favorite pastime seems to be christening ships at launchings.

But of all the figures I have been, "The Doves" cling in my memory clearest. I shall certainly have a pair of those Doves and a Flower Girl on my night table whether I have to enlarge the table or not. I would rest better just for the proximity of such lovely work.

With all due respect for the Directors of the San Francisco School of Art, so many students "take a whirl at art," as they say, and also so many drop it when something, like brass buttons, takes up their attention, Adele, if her husband will let me address her that way, has carried on. As a member of the San Francisco Society of Women Artists she certainly is carrying on. But, then, genius always does.

For one who has done as much notable work as ADELE WAYLAND a brief outline of her training and exhibitions is apropos. Her early training was in the California School of Fine Arts where she studied sculpture under Stackpole and wood carving under Jacques Schnier. In ceramics Mrs. Wayland turned to Glen Lukens at the University of Southern California to gain further knowledge of glazes and other secrets of ceramic art. Later she turned to Mr. Wm. Bragdon of the California Faience Company of Berkeley who coached and taught her the practical points about molds, glazes, kiln operation, etc., until important exhibits came along.

The Age of Stoneware

By CHINGWAH LEE

(In two previous articles, Mr. Chingwah Lee, noted ceramic expert, has traced the beginning and the development of property in China.)

The Golden Age of Porcellaneous stoneware, that interesting group of ceramics which stands halfway between pottery and porcelain, is represented by three periods: the short era known as the Five Dynasties (907-960 A.D.); the great Sung dynasty (959-1278 A.D.) and the Mongol era or Yuan dynasty (1279-1368 A.D.). During the Five Dynasties three famous stonewares were produced, Yueh yao, pi-se yao and Chai yao.

Yueh yao, a continuation of the Yueh Yao of the T'ang dynasty is now more refined and more porcellaneous in nature and can more fittingly fulfill the praises of the T'ang poets who stated that they are "like ice and jade," doubtlessly referring to the translucent and green qualities of the glaze.

The rulers of the city-states of Wy and Yueh were supplied with a Yueh ware the color of whose glaze goes by the name of pi-se. Recent discovery has shown the glaze to be a celadon of a color which is now green and now olive.

The Chai yao, also produced during this period, is famed in Chinese literature as being "thin as paper, resonant as jade, and blue as the sky seen between clouds after a rainfall." The identification of this ware is tentative, but most experts place it as a form of thinly potted, semi-translucent ware of the ying-ching type. These three stonewares

(See Page 22)

CHINESE STONEWARE. Left to right, a Chun yao incense burner of grey-blue with red splashes, a sea green Lung Ch'uan celadon vase, a Chun yao saucer with purplish splashes and medium size crackles, and an autumn leaf brown temmoku bowl. A Sung dynasty. Photo courtesy De Young Memorial Museum.

A BUILDING Is As Young As Its Arteries, Too

Senility affects buildings as well as humans — and in both cases the trouble is likely to result from insufficiently elastic arteries.

In homes and commercial buildings, alike, the arteries that carry electricity limit the usefulness of the structure if they are not capable of carrying sufficient power for continually increasing needs.

All indications point to tremendous demands for electricity in the postwar era. Architects and builders must provide wiring for adequate and convenient service on a scale never before known if their work is to withstand obsolescence.

Assure the long life of the postwar homes and buildings you plan by equipping yourself with information on the latest developments in wiring.

ADEQUATE WIRING SERVES AND SAVES — THE KEY TO THE HOME OF TOMORROW

NORTHERN CALIFORNIA ELECTRICAL BUREAU
1355 Market Street
San Francisco

IN THE NEWS

SIMPLIFIED METAL WINDOWS

Use of metal windows in tomorrow's buildings will be greatly simplified, and considerable savings effected, as a result of the coordination of window designs and dimensions and reduction in number of standard types, just approved by the member-manufacturers of the Metal Window Institute.

Standardization of metal windows falls into two groups:

1. Residence casements will be manufactured in dimensions ideal for residential construction. 2. Non-residential windows of different kinds and makes, such as Intermediate Projected, Intermediate Combination, Psychiatric, Security, Pivoted, Commercial Projected, Architectural Projected, and Housing Windows, will be designed in uniform standard sizes, and will be interchangeable

---

MR. ELDRIDGE T. SPENCER and MR. WM. CLEMENT AMBROSE have moved offices from 369 Pine Street to 251 Kearny Street, San Francisco.

NEW OFFICIAL PPG INSIGNIA

The Pittsburgh Plate Glass Company has adopted a new official insignia consisting of the letters PPG interlocked, in order to facilitate the ready recognition of its many and varied paint, glass, brush, chemical and plastic products. This insignia will appear on all labels or other means of product identification, advertisements, letterheads, packages, signs or wherever the Company signature might be used throughout its entire organization.

ALTON S. LEE has moved to 3006 Thompson Ave., Alameda, California.

OCTOBER CONSTRUCTION ACTIVITY

New construction activity in the United States during October, 1944, totaled $308,000,000 the War Production Board reports. This volume was six per cent under the September, 1944, level and 40 per cent below the volume of October a year ago. Total for the year 1944 was expected to approximate $3,700,000,000, less than half the construction volume of 1943.

Privately-financed construction activity during October totaled $121,000,000, a seven per cent decline from the previous month and 12 per cent under the October, 1943, activity.

Work financed by public funds in October amounted to $187,000,000, a six per cent over-the-month decline and 50 per cent under the $377,000,000 volume of October a year ago.

These people buy a battleship —every week!

Meet John S——— and Mary D———

John works at an electronics plant on Long Island, and makes $85 a week. Almost 16% of it goes into War Bonds.

Mary has been driving rivets into the hide of one bomber after another out at an airplane plant on the West Coast. She makes $55 a week, and puts 14% of it into War Bonds.

John and Mary are typical of more than 27 million Americans on the Payroll Savings Plan who, every single month, put a half a BILLION dollars into War Bonds. That's enough to buy one of those hundred-million-dollar battleships every week, with enough money for an aircraft carrier and three or four cruisers left over.

In addition, John and Mary and the other people on the Payroll Plan have been among the biggest buyers of *extra* Bonds in every War Loan Drive.

When you come to figure out the total job that John and Mary have done, it's a little staggering.

They've made the Payroll Savings Plan the backbone of the whole War Bond-selling program.

They've helped keep prices down and lick inflation.

They've financed a good share of our war effort all by themselves, and they've tucked away billions of dollars in savings that are going to come in mighty handy for both them and their country later on.

When this war is finally won, and we start giving credit where credit is due, don't forget John and Mary. After the fighting men, they deserve a place right at the top of the list. They've earned it.

You've backed the attack—now speed the Victory!

ARCHITECT AND ENGINEER

This is an official U.S. Treasury advertisement—prepared under auspices of Treasury Department and War Advertising Council

PREFABRICATED PORTS

HOW OUR FRENCH COAST INVASION WAS POSSIBLE

LONDON—(By Cable)—During the administrative planning of the invasion it became clear that even in the best possible case of all French ports falling into our hands undamaged, the quantity of stores to be landed for the maintenance of the force would exceed port capacity. This meant that stores would have to be landed over beaches while ports were being improved. It was generally estimated that the quantity to be landed in this manner amounted to about 12,000 tons and 2,500 vehicles of all shapes and sizes per day, and that this would not be reduced for at least 90 days, during which many interruptions by bad weather might be expected.

In June, 1943, the Chief of Combined Operations held a meeting in London of commanders of both British and U. S. forces to hear reports of the equipment that was being provided for the operation, and to consider what additional equipment could be provided in the time available. Amongst other things, the meeting decided that artificial harbors were essential to provide sheltered water for unloading over the beachs to meet the administrative demand.

This decision was submitted, as part of the operational plan, to the Combined Chiefs of Staff at the Quebec Conference.

On receipt of their approval, technical experts from the Admiralty and War Office were telegraphed for and flew over to join their U. S. counterparts in order to make full use of the resources of both countries. By September 3, they had reached their conclusions and their recommendations had been submitted to the Combined Chiefs of Staff in Washington.

It was fully realized that the time was so short that the undertaking would be risky, as it was very unlikely that the necessary equipment could be produced in time to permit exhaustive tests or to make modifications in the light of later experience. It was, however, decided that the risks had to be accepted, that experiment and construction should proceed concurrently, and that all the work should be done in the United Kingdom in order to save time.

Herewith is the SHAEF cabled release on the prefabricated harbors which made possible the Normandy landings. The problem and how it was solved has been the subject of endless discussion among readers of ARCHITECT AND ENGINEER as well as laymen and general public. For that reason it is here set forth as received from the British Information Services.

The plan originally accepted was that two artificial ports, one in each sector, the British and the U. S., should be made, each consisting of a breakwater formed by concrete caissons. The War Office undertook to produce the caisson designs.

In spite of the great quantity of work to be done and such essential experiments as the effect of wave action on the design—which were carried out at the National Physical Laboratory—sufficient working drawings were produced by October 4, and the final drawings were substantially completed by October 20, all details being finished by November 27. The execution of the work was placed in the hands of the Ministry of Supply on September 24, 1943.

The Ministry of Supply employed many of the leading firms of consulting engineers to assist in the project, and the actual work was carried out by 25 large contracting firms.

The total labor force involved in the construction, not including the fabrication of many essential small parts, was about 20,000 men. This included 1,200 skilled fitters, 1,400 carpenters and 2,400 semi-skilled workers, all of whom had to be mobilized and moved to the right areas.

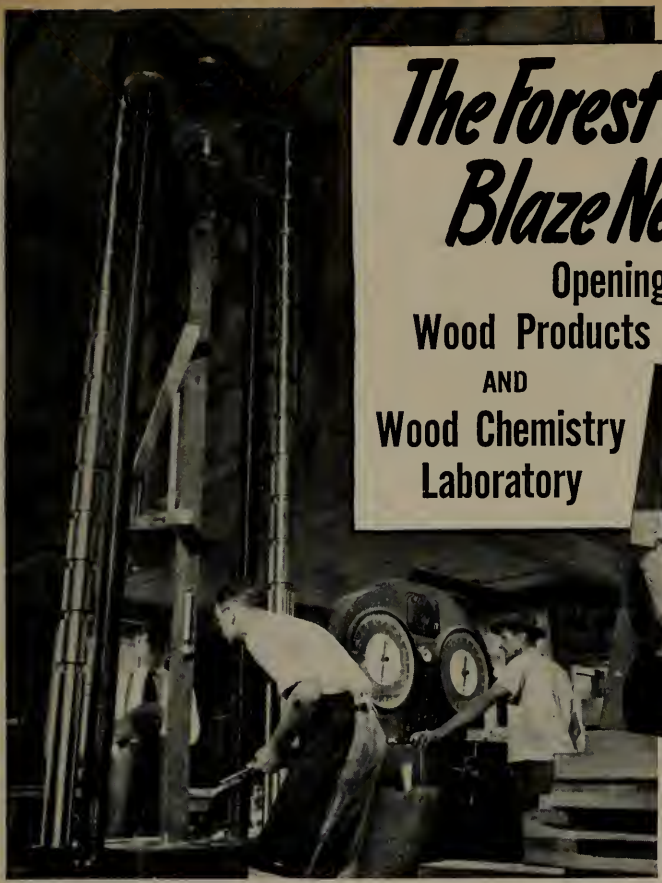
In all, it is estimated that the following main materials were used: 330,000 cubic yards of concrete, nearly 500,000 tons; 31,000 tons of steel; 1,500,000 super yards of shuttering.

In order to accommodate the necessary shipping and port equipment, the size of each harbor had to be roughly the same size as Dover, which entailed construction of 150 caisons.

These caissons were made in six different sizes to suit various depths of water up to 5½ fathoms. The largest size had a displacement of 6,044 tons, the smallest a displacement of 1,672 tons. When floating the whole looked rather like a Noah's Ark without its roof, while, viewed from above, the cross walls made it look like an egg box, as there was no deck.

At a late stage, Bofors guns, 20 tons of ammunition and rough shelters for a gun crew were placed on the top of most caissons as additional A.A. protection of the harbor.

(See Page 30)



The Forest Industries Blaze New Trails

Opening of TECO Wood Products Development Shop AND Wood Chemistry Laboratory

TECO Chemistry Laboratory. TECO chemists are here shown working on lignin derivatives.

200,000 lb. Baldwin-Southwark testing machine in the TECO Shop. Material undergoing test is a small wood column being tested in compression.

Timber Engineering Company announces the opening of its Wood Products Development Shop and Wood Chemistry Laboratory located in Washington, D. C.

The Wood Products Development Shop has a full scale testing rig equipped to handle trusses up to 50′ span; auto-claves and other equipment used in pressure treating; dry kiln and high pressure steam equipment for impregnating; and other facilities for determining the physical and mechanical properties of wood and wood products.

The Wood Chemical Laboratory has modern equipment for investigations in wood chemistry and wood derivatives research. It is giving special attention to lignin research including adhesives, synthetic plastics, etc.

If you have any problems in respect to the physical, mechanical and chemical properties of wood, the technical staff of the Timber Engineering Company may be of assistance on a moderate fee basis. If its own facilities will not solve your problem, it will assist you in locating sources which can.

Consultations at our Washington office may be made by appointment and without obligation on your part. Write us on your business letterhead stating your wood utilization problem.

Timber Engineering Co., Inc. of Washington, D. C.

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COLOTYLE CORPORATION *announces*

a Prize Competition for Western Architects

An authorized
A.I.A. Competition

$1500.00
IN CASH PRIZES
. . . for the **BEST**
BATHROOM DESIGN
Using COLOTYLE Walls

THE PROBLEM

To design a master bathroom with a total floor area of not more than 100 square feet, consistent with a home costing not more than $10,000, making the best and most practical use of COLOTYLE on the bathroom walls. If water closet is in a separate room, area of that room must be included in the 100 square feet.

THE PRIZES

GRAND PRIZE	For the best entry submitted by a Western architect or draughtsman	**$500.00**
Sectional Prize	For the best entry submitted by an architect living in Washington, Idaho or Montana . .	**$250.00**
Sectional Prize	For the best entry submitted by an entrant living in Oregon, Nevada or Utah	**$250.00**
Sectional Prize	For the best entry submitted by an entrant living in California or Arizona	**$250.00**
10 Honorable Mention Awards, $25.00 each . . .		**$250.00**

CONTEST CLOSES AT MIDNIGHT, FEBRUARY 15, 1945. ALL ENTRIES MUST BE POSTMARKED NO LATER THAN THAT TIME. EACH ENTRANT WILL BE ASSIGNED AN IDENTIFYING NUMBER TO APPEAR ON HIS ENTRY. WRITE TODAY SIGNIFYING YOUR DESIRE TO ENTER.

Let Your Imagination Go!

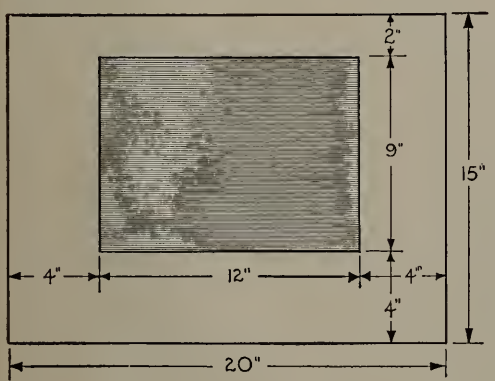
This contest is designed to bring out your ideas of beautiful, practical bathrooms using Colotyle *plastic-coated* wall sheets as the predominant wall material. Each entrant will be supplied with catalogs and other literature showing colors, features, acceptable construction, etc., upon request. You may submit as many entries as you wish, but you are eligible for only one prize.

Contest open only to Licensed Architects and Architectural Draughtsmen

Only Western licensed architects, and draughtsmen sponsored by licensed architects, are eligible to compete. The contest is limited to those persons residing, or working, in Washington, Oregon, Idaho, Montana, Nevada, Arizona, California and Utah.

Make Visualizations to Size

You are required to show just one perspective drawing, and each drawing should be to standard size, as given in the illustration below. Drawings should be to scale of one inch to one foot; floor plans one-quarter inch to one foot. (See rules for complete details.)



Judges:

Judges will be selected from professional architects and editors of architectural magazines.

Read These Rules Carefully

These simple rules are designed to put all competitors on an equal basis, and to protect them. Read them carefully so that your entry may not be disqualified because you overlooked some rule.

CONTEST RULES

1. The contest is limited to licensed architects and to architectural draughtsmen sponsored by registered architects.

2. Judging will be based on [1] Over-all bathroom design, 40%; [2] Originality of wall design, 20%; [3] Practicality of wall design, 30%; [4] Use of color, 10%.

3. Each entrant should notify the company of his intention to submit an entry. Each entrant will be assigned a number which should be the only identification on the entry. Upon such notification, the Colotyle Corporation will send catalogs and other published material to aid the entrant in formulating his entry.

4. Any architect desiring further information regarding the use of Colotyle, Colotyle accessories or any information about the contest should write his questions directly to the Professional Advisor, Mr. Robt. McClelland, A.I.A., 706 Republic Bldg., Seattle 1, Wn.

5. Designs may incorporate the use of other materials, such as plate glass mirrors, wallpaper, etc., in conjunction with Colotyle, but the Colotyle must predominate. Use of other materials must be practical applications of such materials, and must enhance over-all design.

6. No employee of the Colotyle Corporation, or member of an employee's family is eligible to compete.

7. Prize entries will become the property of the Colotyle Corporation. Others to be published with the approval of the competitor.

8. All entries must be mailed to the Colotyle Corporation, Aurora at Mercer, Seattle 9, Washington, and must be postmarked no later than February 15, 1945.

9. In the event of a tie, duplicate prizes will be awarded.

10. The decision of the judges will be final.

COLOTYLE CORPORATION
Aurora at Mercer, Seattle 9, Wash.

WASHINGTON MUTUAL SAVINGS BANK
Seattle, Washington
C. A. Merriam, Architect

The Why of Ceramic Veneer

Streamlining Ancient Building Material

By MARK DANIELS, A.I.A.

The ability to plan a building so that it will satisfactorily function in carrying on the business of the tenants is only one of the skills required of the present day architect. He must have an understanding of business economics, property management and maintenance. He must be a leader in development of trends toward progress and evolution in the area in which he is practicing his profession. In other words, in order to best serve his clients he must be both a dreamer and a realistic business man. Return on the investment in a property is the first consideration in the erection or modernization of a building under private ownership, and that consideration should not be overlooked even in the planning of public owned structures, the original cost and the maintenance of which should be of similar concern to the planning agency and to the citizen taxpayer who ultimately foots the bill.

The manufacturer and supplier of materials which go to make up the completed project born on the drafting boards of the architect have a very real responsibility in the attainment of the functional, economic and esthetic goals of the architect and the owner. Terra cotta and ceramic veneer have played a prominent part in the realization of these goals.

Architectural terra cotta has a long history of satisfactory performance behind it. Pacific Coast manufacturers are proud of the part they have played in the development and maintenance of the highest standards attained anywhere in the manufacture of this time-tried material for building facings. There are numberless outstanding examples of its use where it still bears witness to the lasting and esthetic qualities of burned clay facing material.

Architects have employed Terra Cotta since the early days of the Greeks. The Italians used it profusely, particularly in the late Gothic and early Renaissance periods. The Palazzo Fava in Bologna, Italy, is an excellent example of the use of burned clay to decorate the facade of a building. We began the use of Architectural Terra Cotta in the United States about 1880 and have employed it freely ever since, but almost always as ornament as wall facings in small scale.

Of late architects and laymen have noticed the great improvement in the facing material in our more important buildings but they have attributed it to advancement in the skill of the workmen and the art of applying the facing material. If they would look further and more closely, it would be-

MODERN DESIGN GLADDING, McBEAN & COMPANY BUILDING, PORTLAND, OREGON

Victor N. J. Jones, Architect

come apparent that the old Terra Cotta could not do what is now accomplished with Ceramic Veneer. Formerly, on account of the warping, large units were next to impossible if they were to present a plane surface. The method of manufacture had to be changed, as did many other elements in the process, but the demand for more accurate fitting, truer surfaces and, above all, larger units to preserve scale, became more insistent until finally the manufacturers of the Pacific Coast took up the challenge and developed what is now called Ceramic Veneer. It was a mighty stride taken after years of research and experimental work but now we may have our buildings faced with slabs in excess of two by four feet, true to plumb line and eye, and in colors and textures of a wide variety from which to choose.

Until a few years ago all architectural terra

PACIFIC NATIONAL BANK BUILDING

Located at the corner of Second and Marion Streets, Seattle, Washington. Built of large ceramic veneer.

C. A. Merriom, Architect

WASHINGTON TITLE INSURANCE BUILDING

Seattle, Washington—With Adhesion Ceramic Veneer Except Dark Center Pavilion Which Is Anchored Ceramic Veneer

Graham and Painter, Architects

cotta was produced by the time-honored method of hand-pressing the soft clay in plaster moulds. This method entailed certain limitations as to size and other characteristics of the finished burned product. And, too, hand operations are never as productive of low finished costs as are volume production by machine methods.

Early in the depression years of the thirties, Pacific Coast manufacturers pioneered in the development of the process of deairing plastic clays prior to fabrication. Essentially, the process consists of exposing the mixture of clay and water, just prior to extrusion or forming in other methods, to a vacuum for sufficient length of time to extract all entrapped air from the plastic clay mass. We soon saw, as a result of this improvement, an opportunity to vastly improve the manufacture of what had heretofore been known as Terra Cotta. Under this new method the material is prepared by first deairing the clay and water mixture and then extruding under high pressure through dies in the form of slugs or blanks of the approximate size required. These slugs, when dried, are then dry finished on a machine developed for the purpose which planes the surface of the material to a thoroughly level surface comparable to rubbed stone. To these slugs is then applied the ceramic finish required, that is, glazed coating, granitex, triplespot, etc., and the material is burned in the usual manner. When the slugs are drawn from the kiln they are then sawed and fitted into their required shape by modern stone-cutting methods. This results in a finished piece of a slab-like form true as to surface and accurate as to size, as distinguished from the box-like form of the old-fashioned terra cotta.

Machine-Made Ceramic Veneer, as this precision material is called, has several very distinct advantages over the older type of material. First, it is more homogeneous in structure and, therefore, stronger; second, having been surface-finished in the dry state after most of the warpage

BEFORE (Upper) and AFTER (Lower) CERAMIC VENEER TREATMENT Earl Morrison, Architect

U. S. NATIONAL BANK OF PORTLAND—KLAMATH FALLS, OREGON BRANCH

With Anchored Type Ceramic Veneer Material

Sutton, Whitney & Aandahl, Architects

F. W. WOOLWORTH COMPANY BUILDING

Seattle, Washington—Machine and Hand-Made Anchored Ceramic Veneer in Three Shades of Mottled, Buff and Tan Glaze with Tower Clock Letters and Frame Burned-On Gold.

Right:
VIEW OF LOBBY

Center:
ENTRANCE

Bottom:
GENERAL VIEW

Another Ceramic
Veneer Building

UNITED STATES COURT HOUSE

Seattle, Washington

G. Stanley Underwood, Architect

THE FIRST NATIONAL BANK OF PORTLAND—PENDLETON, OREGON BRANCH
Richard Sunderleaf, Architect **McCormack Construction Co., Contractors**

has taken place, it is very true of surface; third, it can be furnished in larger units, it being entirely practicable to furnish pieces as large as two feet six inches by four feet three inches; fourth, it requires at least two and one-half inches less room than the older type of material, making it possible to add that amount of space to the finished room on the inside; fifth, its slab-like character with its roughened and dovetailed back makes it very much more simple to secure absolute stability of construction by the use of grout than was possible with the older material; sixth, a material reduction in weight of facing material to be carried by the structure, and, finally, not only the cost per square foot of the material itself, but the cost of labor for installing, are both less than for the older material, resulting in a very substantial economy in its use.

There are two general methods of construction employed in the installation of this modern form of terra cotta called Ceramic Veneer, depending largely upon the type and design of the building. One is known as the Anchored Type, in which the slabs are anchored to pencil rods which in turn are affixed to the structure itself, and then the entire space between the back of the Ceramic Veneer and the face of the structure is filled with lean grout. The other method of installation is known as the Adhesion Type, in which the pieces are first "buttered," then tapped into place directly against the structure being faced, using in general a technique which has been developed by extensive research, tests and usage without any anchors of any description being required. Very elaborate and exhaustive tests have been conducted to prove the adequacy of both of these methods of construction, and many buildings using each method have been successfully completed at the present time.

The use of this type of machine made material places no restriction upon the designer as compared with the old-fashioned terra cotta, since it is entirely possible and usually desirable to combine with the machine made material certain features which, because of ornamentation or lack of repetition, must still be made by hand. The two types, Anchored and Adhesion, are shown in the illustrations.

BRITAIN'S POST-WAR HOUSES will have guarantee. Already 50 per cent of the private builders who will put up 85 per cent of Britain's brick houses have agreed to accept British standards and to permit inspectors to examine their work. If their buildings are sound they will receive a certificate which will carry with it a guarantee to the purchaser of the house that if anything goes wrong within two years the builder will put it right.

A.I.A. ACTIVITIES

In order to better serve the membership and the public, the organizations representing the architectural profession within the State of California are in the process of revamping their by-laws to provide for a central co-ordinating body. The first step necessary to achieve this unified action was taken by the State Association of California Architects which, with the help of the Chapters of The American Institute of Architects, has set up the California Council of Architects.

In the past few years two new problems have arisen which required revisions in the by-laws of the Association. One of these was The American Institute of Architects' program of unification. The other was the problem of students and draftsmen and their relationship to the architectural profession. There are organizations taking active steps to bring architectural students and draftsmen within their jurisdiction. It was the consensus of opinion among the architects that the interest of the students and draftsmen could be best served within the profession rather than through trade or industrial organizations. At the Directors' meeting of The American Institute of Architects held in Indianapolis in May of this year a presentation was made of the case of the State Association of California Architects in relation to the unification program proposed by The American Institute of Architects. It was agreed that California would endeavor to arrive at a working basis whereby the State Association of California Architects and the various Chapters within the State could fit into a national unification program. This has since become the first order of business for the State Association.

The By-Laws Committee of the State Association of California Architects was requested to re-write the existing Constitution tnd By-Laws so as to provide for unification and for the affiliation of students and draftsmen. The work of this Committee met with the wholehearted endorsement of all groups within the State. Under this proposal, and with the addition of a few minor suggestions made by various individuals, a California Council of Architects was to be created which Council would be composed of representatives from District Chapters. These District Chapters would be co-terminous with the present geographical boundaries of the Chapters of The American Institute of Architects.

It was also provided that the District Chapters should have their membership open to all registered architects within the districts. The various Chapters within the State were to prepare amendments to their by-laws which would permit the formation of these district organizations.

The major problem facing unification under the District Chapter plan was that of non-dues paying members of the State Association of California Architects. The new by-laws provide that the California Council of Architects may take the necessary legislative action to become a State corporation empowered to direct all the activities of the profession within the State. This organization would be empowered to regulate the practice of architecture and to levy all fees connected therewith as well as for assessments necessary for the establishment of an adequate executive staff and assistants whose duty would be to promote the interests and welfare of the profession. Under this corporation all architects would automatically become dues-paying members of the District Chapters, and unification, in its entirety, would be achieved.

At the Convention of the State Association of California Architects held at the Fairmont Hotel in San Francisco on November 3rd and 4th, the revised by-laws were adopted. These by-laws provide for a Northern and a Southern California Association of Architects which would be the interim organizations set up pending formation of the District Chapters. The California Council of Architects was formed and is now acting as the coordinating group for the two interim associations. When a Chapter of The American Institute of Architects amends its by-laws to provide for student and draftsmen affiliation as well as an equal voice in all matters of State or local nature for all architect members it will automatically become a District Chapter of the California Council of Architects and will supersede the Association within its area. When all of the District Chapters are formed the two Associations shall cease to exist At this time, the Chapters of The American Institute of Architects in the State of California are taking active steps to revise their by-laws and will call upon The American Institute of Architects to sanction the revisions where these are not in agreement with the present requirements of The Institute. We believe that unification, as it is now proposed under the California Council of Architects, is one of the greatest steps forward the profession has taken.

SOULE & MURPHY and E. KEITH LOCKHARD, 2840 Serene Road, and SYLVANUS MARSTON, 385 E. Green St., Pasadena, have been appointed to plan $1,500,000 buildings for the Santa Barbara College Campus of the University of California.

(From Page 7)

paved the way for the great production which follows during the succeeding Sung dynasty.

"The Sung dynasty produced the most intellectual civilization the world has ever known. With the Sung dynasty itself we arrive at a period when, from the point of view of form, the potters of no other nation at any time or period have been able to produce anything of comparable quality. The architectural quality of many of the forms is emphasized by their beauty of proportion, which in details of construction such as handle or spout there is always a complete sense of fitness without the loss of individuality. In decoration, where it is used, sureness of touch and rightness of taste are almost always present in a high degree. It is only within recent years that Sung ceramic art has really entered the comprehension of the Western World." (Leigh Ashton and Basil Gray in "Chinese Art," 1936). "Sung potteries are, almost without exception, monochromes. They are either entirely undecorated or the design is carved, etched, moulded or appliqued under the glaze, processes which were applied while the clay was still unfired. The perfection to which the Sung potters carried the three aspects of form, color and finish, on which the success of their products depended, has never been excelled" (Dagney Carter in China Magnificent," 1935).

We may divide Sung into eight key types, and it is safe to say that all subsequent ceramics may be traced in part or in whole to these types or modifications of these types. These are the celadons, the crackles, the tings, the Chuns, the temmokus, the graffiato, the enamelled polychromes, and the painting under the glaze. We shall see that approximately the first half of the above constitute the "aristocrats" of the time.

The term celadon, once synonymous with monochromes of any color, is now applicable only to high-fired monochromes whose greenish color is due to the presence of traces of iron oxide in the glaze. There are four discernable classes produced at this time: the ying ching group, represented by the Chai yao; the olive-colored group, represented by the pi-se yao or the Northern Celadon; the grey-green group, represented by the Lung Ch-uan yao and the Chang Ti yao; and the crackled celadon group, represented by the Kuan, Ko and Ju wares.

The ying Ching ware is the most generalized of the celadons and is produced in many centers all over China, but especially in Kiangsi province. The term ying ching, meaning shadowy blue-green, is well taken, for the color varies from an almost colorless grey-green when it suggests a Ting ware to a decided green when it suggests a celadon of the Lung Ch-uan type. At its best the ying ching ware has a decided blue tinge. The paste is sugary white, with carved, stamped or moulded design which shows clearly through the translucent glaze.

A large variety of celadons were made by many potters in the Lung Ch-uan district of Chekiang. What is called "Old Lung Ch'uan" is the best known, a stout grey-white ware coated with a heavy sea-green glaze which was being exported all over the middle-East and Europe from the Sung dynasty onward. As the biscuit will turn into a beautiful brick-red color when exposed to the heat of the kiln the potters have taken advantage of that fact, and there are some celadon with raised, unglazed ornaments whose brick-red color is in striking contrast to the lovely green ground. A spotted kind, called lu-tien (sagger spot) Lung Ch'uan, is very rare.

Chang Ti yao is Lung Ch'uan made by the younger (Ti) of two Chang brothers who were famed potters. It is a highly refined, thinly potted

(See Page 38)

"FLOWER GIRL"

Glazed model by

Adele Wayland

IN THE NEWS

A LETTER FROM GUTTERSON

HENRY H. GUTTERSON
ARCHITECT
2922 Garber Street, Berkeley

Mark Daniels, Editor,
Architect and Engineer,
68 Post Street, San Francisco

Dear Mark:

Your kind inquiry about my activities is appreciated. In response I will report that I closed my office following the Pearl Harbor incident to become Building Counselor for the U.S.O. in the western states. This involved me in a great miscellany of leasing, building and furnishing problems for about 400 service clubs. Ingenuities were taxed to the limit, as were all other capacities. Later, the assumption of the post of regional executive of the organizations' Western Region climaxed the adventure and gave me every opportunity to test my architectural training in other fields. I didn't get fired, anyway!

Last July it became apparent that the expansion period of the U.S.O. had ended. Since pressures for post-war architectural planning for clients who were awake to the values in preparedness had become insistent, I resigned from U.S.O. The interval to date has been spent in bringing such projects to the point where the re-establishment of my office became necessary. It opens December first in the Wells-Fargo Building, at 85 Second Street. Do come and see it.

Whereas it is quite evident that conditions in the building industry are still most uncertain and that new materials, techniques and restrictions will influence its future, I feel very strongly that architects now in practice should be using this period for planning the post-war activities of our crucial industry. When our veterans return, building must be started to take care of hundreds of thousands of them. Our professional contributions toward that end will be vital to the country's welfare. Our clients can know that their courage in starting plans now will be well rewarded because later the pressures of hurried planning will be terrific and relatively unsatisfactory.

You are taking over the editorship at a propitious time. Great days are ahead, unparalleled opportunities for guiding what promises to be the most progressive, enlightened era in the history of our country. With your background of training and experience you rate a conspicuous place. I believe that the profession is in the process of unifying for the purpose of meeting their obligations to the public and preserving its honored place in its estimation. Let us hope you get its best support.

With high hopes and all best wishes,

Sincerely yours,

Henry H. Gutterson.

HARRY A. THOMSEN was appointed to prepare plans for the Forest Products Lab. in Berkeley, California.

MARBLE INSTITUTE OF AMERICA

B. A. Colonna, president of Colonna & Co., Inc., New York, has been elected president of the Marble Institute of America, comprised of members of the marble industry. Function of the Institute is to co-ordinate and disseminate information about marble to architects and the general public for use in post-war building. Detailed purposes and plans, and the appointment of a managing director, will be announced shortly. Members of the Institute elected to serve on the board of directors are:

President, B. A. Colonna, Colonna & Co., Inc., New York.

Vice-President, W. W. Getchell, Northwestern Marble Corp., Minneapolis, Minn.

Secretary, Carl Stafford, Tennessee Marble, Inc., Knoxville, Tenn.

Treasurer, Chester A. Smith, Chester A. Smith Co., Columbus, Ohio.

Other directors: James Cullo, James Cullo & Son Marble Co., New York; E. M. Frig, Interior Marble & Tile Co., Inc., Cleveland, Ohio; Roy Mayes, Carthage Marble Corp., Carthage, Missouri; and Fred J. Plimpton, vice-president, Vermont Marble Co., Proctor, Vt.

EARL B. BERTZ has opened offices at 156 Montgomery St., San Francisco, for the resumption of his architectural practice.

THE PRODUCERS' COUNCIL was held in N. Y. City on November 27-29. Although the meeting was three days the subject of resumption of civilian construction left little time to discuss golf or politics.

"HOUSES FOR TOMORROW" is the 96th Public Affairs Pamphlet and can be had for 10 cents at their headquarters, 30 Rockefeller Plaza, N. Y. Mr. Carskadon, the author, holds forth to some extent, in support of government aid in housing as available through USHA and FPHA. Some people think it is aid and some think it is available, at times.

Left:

Shambles of twisted steel and concrete following fire.

Center:

Exterior of burned building, and—

Left:

interior a mass of rubble.

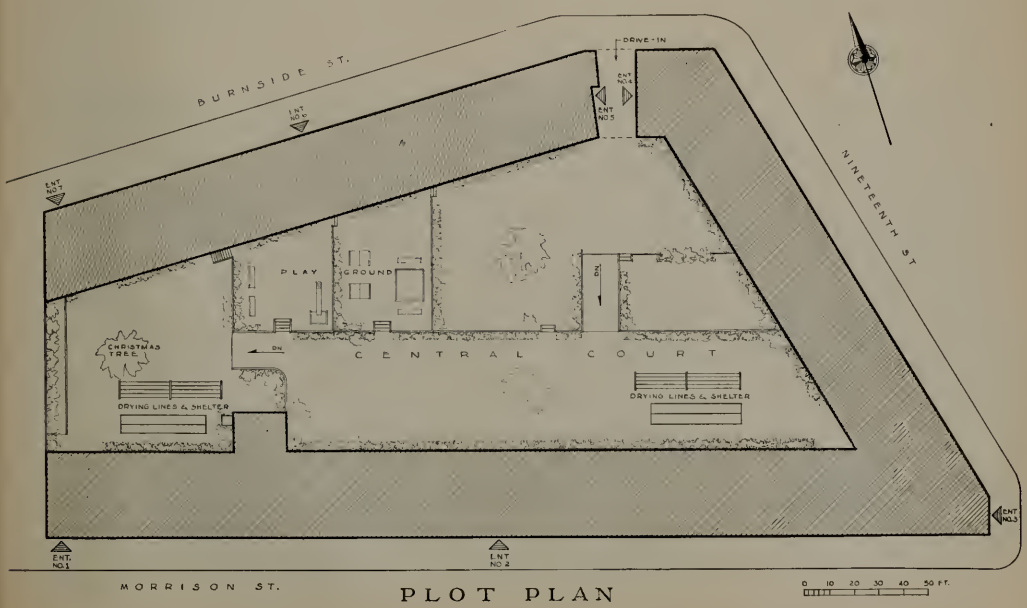
STADIUM COURT APARTMENTS

Portland, Oregon

Plans and Specifications by Leonard S. Mosias, Construction Planning, San Francisco
Supervision by L. L. Dougan & Bernard Heims, A.I.A. Resident Architects, Portland

Early in 1943 the Home Owners' Loan Corporation, Portland, Oregon, received from the National Housing Agency an assignment to provide permanent housing for in-migrant war workers. Never before in the history of this Nation had wholesale conversion of any and all types of structures into family living units been scientifcally approached and considered. The orders were not only to do that but to create them with unprecedented speed, in order to house the workers so urgently needed to build ships, planes, and produce materials necessary to the war effort.

The requirements of war placed many restrictions on the building industry. It was difficult at first to evaluate the significance of consequent shortages of materials always considered essential and always found readily available in abundant quantities. Vitally important matters had to be clarified and cleared with the National Housing Agency, the War Production Board, the Office of Price Administration, as well as other important governmental agencies, all of great importance to the over-all problem of not only creating family units, but to lease properties and to operate and



PLOT PLAN

Left:

Modern design of hallways and stairway arrangement.

maintain the converted structures for an indefinite period of years.

In dealing with existing structures many were found to be designed for other purposes; or if planned for living quarters, they had to be redesigned and intensified internally to house more families. Too often the latter was found to be improperly designed; and many of all types of structures were poorly constructed. Time was not available to cure all such defects. This was a program of direct assistance to the war effort . . . to create additional living quarters for war workers as soon as possible with the most sparing use of critical materials.

Typical Interior of reconstructed apartment.

It was a large order to tax the ingenuity and skill of the profession; but when the call went out, architects, engineers and builders responded. Their ability bulwarked by their ready enthusiasm brought forth results. Today, all over the Nation are thousands of formerly condemned, forsaken and neglected structures transformed into permanent, comfortable and healthy family living units.

The Stadium Court Apartments in Portland, Oregon, formerly known as the Multnomah Block, is the largest and considered one of the finest of the many projects of the H.O.L.C. in the Northwest, and one of the most outstanding in the entire country. Today, with its one hundred and thirty-eight living units, all under one roof, and a conversion cost of $360,000, it is the most up-to-the-minute and largest apartment building in the state of Oregon.

Formerly occupied by an automobile agency, a clothes cleaning establishment and miscellaneous stores, the building, of mill type construction, was swept a few years ago by a devastating fire. From the interior it looked as if a "block buster" had struck, so thoroughly had the fire done its work. All that remained standing were the outside walls. All else was literally either gone or hanging by a thread. Soon complaints from irate citizens began to come to the city officials. The damaged structure was an eyesore, a blight on the community. Condemnation proceedings were started. Then, as if to the rescue, came the application to lease the property to the government for conversion into war housing. Supporting the application were plans and estimates from the office of Leonard S. Mosias. After a few modifications were made, the H.O.L.C. decided to process the application.

The 23 two-room, 111 three-room and 4 four-room units cover some 80,000 sq. ft. of floor area. In addition, there are also included within the huge structure three separate conveniently located laundry rooms, store rooms with space for each apartment, drying rooms and utility rooms.

All exterior walls of the structure are of masonry construction. Hollow tile filler walls were erected in the large steel sash openings of the original structure, while the new wall surrounding the central court is solid concrete construction. Interior walls, floors and roof are frame construction. All interior walls and ceilings are plastered with a pleasing colored stucco finish in the living rooms, bedrooms and halls and painted surfaces in the kitchens and baths. Steam heat circulated to radiators in each apartment is generated in one automatically controlled fuel oil fired boiler.

Fronting on three streets, access is gained through seven separate entrances. Once inside the building one may go to any part of the structure. U shape, the building encloses a landscaped central court of over twenty-five thousand square feet floor space. Located here, are additional facilities such as clothes drying areas and shelters, heating plant, transformer rooms and a playground area equipped with swings, slides and sandboxes, for the many children. This latter facility is due to the consideration of the owners in their concern for the health, recreation and enjoyment of the youngsters living here . . . literally in the heart of the city, and surrounded by heavily traveled arterials. The location is ideal for war workers, as each of the three streets has a street railway line, and the heart of the city's main shopping and entertainment section is only five minutes walking distance way.

EXTERIOR VIEW OF COMPLETED STADIUM COURT APARTMENTS

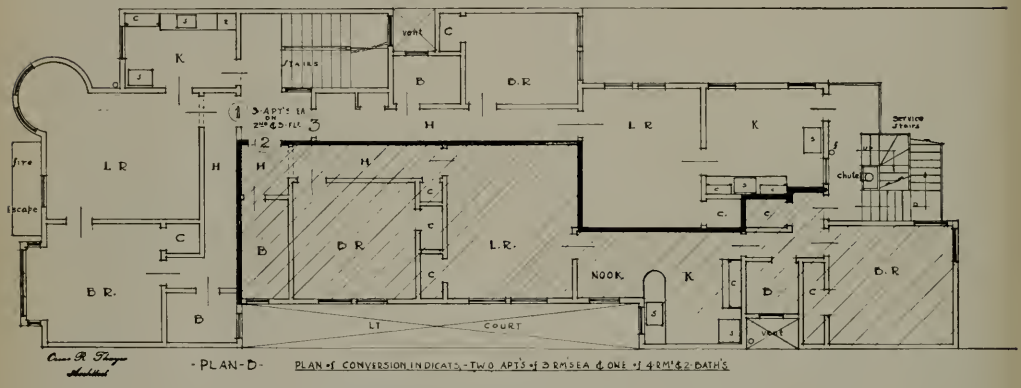
FLAT CONVERSION INTO THREE-ROOM APARTMENTS

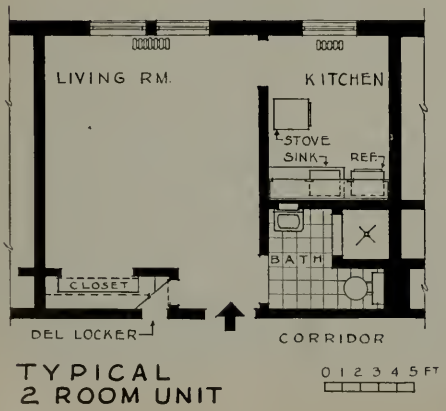
by OSCAR R. THAYER

Plan "A" indicates the second and third floors of a three story flat building in the Mission District which was converted into eight apartments.

Plan "B" indicates the conversion of the second and third floors into three apartments each. One apartment having two baths. This was made necessary because of a rear bedroom, which can be rented as a separate unit.

The first floor contains two apartments of three rooms each located in front and rear of building. The central portion being too dark for suitable living puposes, the space was utilized for storage purposes.





Above:

General Plan of Reconversion.

Left:

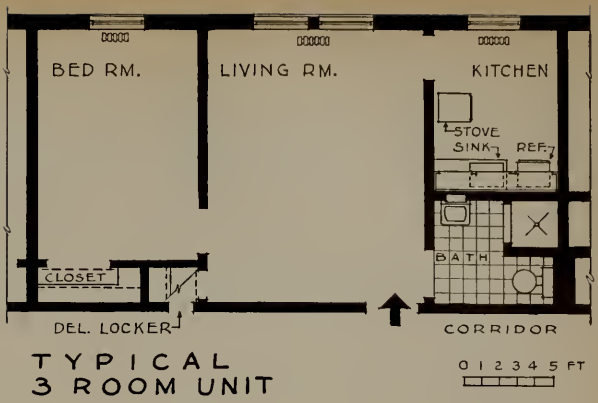
Details of typical 2-Room Unit.

Right:

Convenience of Typical Three-Room Apartment Conversion.

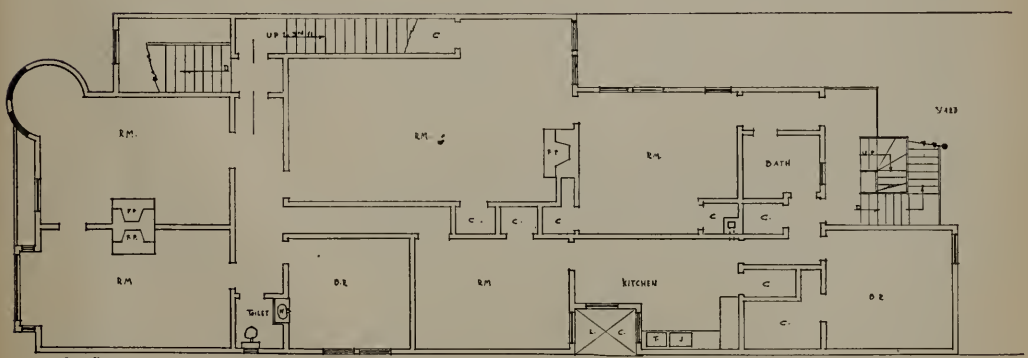
Below:

General Plan of original Eight Rooms.



This building was in very poor condition and the reconstruction included replacing of foundation and roof, also new plumbing and electric work throughout. New entrance vestibule, main and service stairways, plastering of the front elevation and a complete air heating system was provided.

There are probably very few buildings in San Francisco that would require the amount of reconstruction as here indicated, however, the total cost of reconversion, twenty-six rooms and a large semi-fire proof storage space, was considerably less than $1,000 per room, and an unoccupied building made to produce $400 per month.



-PLAN-A-
EIGHT RM. FLAT- CONVERTED INTO-THREE APARTMENTS

PREFABRICATED PORTS

(From Page 10)

For technical reasons, these could not be placed in water deeper than five and a half fathoms, which meant that only a limited number of ships, such as the Liberty type, could use the harbor. It was therefore decided to make an outer floating breakwater in addition, and this task—including experiment, design and production—was undertaken by the Admiralty.

Piers consisted of a single steel roadway, carried on steel girders similar in many respects to an ordinary bridge, but so designed that there was such flexibility that the heaving and twisting effect of the sea could be withstood. Each bridge span was supported on special floats, some of steel, and others of concrete, also designed to withstand the sea and also to sit down on rock or sand when the tide receded. Sections of pier were joined together by special means to give flexibility and to insure easy and rapid connecting up.

There was no limit to the length of pier, other than the depth of water for successful anchoring, but for towing, lengths of 480 feet were joined up.

At the outer end, they were linked to specially designed spud pierheads. These consist of a steel pontoon with a displacement of approximately 1,000 tons. Each pierhead is a "ship," complete with crews' quarters, generating sets, storage accommodation, etc. Coasters berth alongside and unload direct into trucks on the pierheads.

In January, 1944, it was realized that the number of tugs likely to be available was less than the demand. This meant slowing down the rate of construction of the harbors and increasing the risk of interference by bad weather. In order to provide immediate shelter for the host of small craft, it was then decided to make five short breakwaters, formed of blockships, along the invasion coast. These could be provided quickly and would give immediate shelter. Two of them would be incorporated in the artificial ports.

Sixty ships of varying sizes and types were earmarked by the Ministry of War Transport for this purpose, including some warships such as H.M.S. Centurion, the French battleship Courbet and the Netherlands cruiser Sumatra, giving a total length of about 24,000 feet of breakwater.

In the final layout of the breakwaters there were, therefore, three elements—the concrete caissons, the breakwaters and the blockships.

The Admiralty was made entirely responsible for the floating breakwaters and the blockships, and, for the conformity of the caison design with naval requirements, as regards towing and seaworthiness.

The War Office was responsible for the design and the provision of the concrete caissons and piers, for their movement to assembly parks in the United Kingdom, for the actual sinking of the caissons in the artificial harbor and for the construction of piers in the harbor.

It was a British responsibility to provide and deliver all the equipment necessary at the far shore for both harbors. The construction of the American harbor was the responsibility of the U. S. Navy, while that of the British harbor was combined Royal Navy and Army.

The arrangement of the breakwater on the ground was based on old French charts which were thought to be unreliable, owing to changes in the sea bed. These were corrected to some extent by actual reconnaissance and soundings taken before D-day, but the plans had to be left very flexible, final siting being dependent on surveys to be made as soon as possible on D-day.

So far mention has only been made of the breakwater equipment; but, in order to form the port, internal equipment such as piers was highly desirable. It is no easy matter to produce a pier hundreds of feet long, on a flat beach with the rise and fall of a tide of over 20 feet, which may sometimes be floating and, at other times, be resting on the sand, or, worse still, on rock. This problem had been under examination since early in the war without any definite result.

By early 1943, the prototype for the pier had been constructed. During the years 1943-1944 it stood up well to severe tests, so we were able to go into production, the total requirement being seven miles of pier with all the necessary appurtenances.

THE TASK UP TO D-DAY

This was a race for time, the main undertaking being:

1. The construction of the concrete caissons under Ministry of Supply arrangements.

2. The prefabrication of the pier equipment and its assembly into towing pieces.

3. Construction of the floating breakwaters.

4. Preparation of the blockships so they could be sunk easily and rapidly on an even keel.

These four in themselves were an enormous task in the time without taking into consideration other tasks, such as:

1. Towing caissons, floating breakwaters and pier equipment from construction sites to assembly parks. In all, this amounted to 500 tows, some from ports as distant as Leith or Glasgow to the south coast.

2. Servicing and general preparation of the tug fleet for sea.

(See Page 33)

OCTOBER BUILDING PERMITS UP SHARPLY FOR MONTH AND YEAR

The valuation of permits in 215 cities during October, as reported to Dun & Bradstreet, Inc., was $105,428,468, a rise of 49.5 per cent over September with $70,503,124, and 118.6 per cent above the $48,227,985 for the similar 1943 month.

The permit volume for New York City of $60,329,467 was 69.1 per cent above September and about twenty-seven times the total for October a year ago. The aggregate for the 214 outside cities at $45,099,001 represented an increase of 29.5 per cent above the previous month, but a drop of 2.0 per cent from the like 1943 month. Five regions gained over last year during October; with the exception of the South Atlantic, all sections advanced over September.

Building Permit Values (Monthly)

(215 Cities)

	1944	1943	1942
Jan.	$33,942,794	$28,819,468	$62,323,750
Feb.	40,240,118	28,636,836	88,564,969
Mar.	75,826,652	34,785,009	102,745,192
April	44,790,013	49,804,252	117,479,071
May	55,426,499	48,897,084	79,392,215
June	58,178,950	39,787,732	58,944,609
July	72,003,279	46,379,241	60,473,628
Aug.	123,319,856	49,701,766	52,947,083
Sept.	70,503,124	43,320,500	56,060,714
Oct.	105,428,468	48,227,985	44,707,721
Nov.	.....	48,361,780	34,746,584
Dec.	.....	42,393,483	38,846,769
Total	.....	$509,115,136	$797,223,305

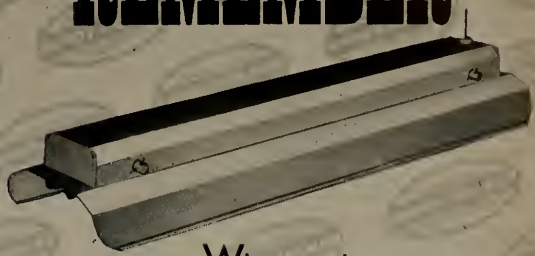
Ten Months' Gain 62.5 Per Cent

For the first ten months of the year building permits for the 215 cities increased 62.5 per cent to $679,659,753, from $418,359,873 for the same period of 1943. New York City permits, totalling $236,328,463, increased twelve-fold in a similar comparison, and the 215 outside cities gained 11.2 per cent to $443,331,290.

Building permit values for October and the first ten months of the past eighteen years, with the percentage change for the cumulative period over the preceding year, follow:

(See Page 45)

A NAME TO REMEMBER



When production restrictions are finally lifted, remember the nationally known name of Smoot-Holman. Then as now, it will stand first and always for QUALITY in lighting equipment, conveniently available throughout the west.

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MADE IN U.S.A.

Offices in Principal Western Cities—Branch and Warehouse in San Francisca

LIGHT BECOMES A "BUILDING MATERIAL"

by JEAN SCOTT FRICKELTON
Northern California Electical Bureau

Can light be used as a building material? For all intents and purposes, the post-war lighting planners are aiming to make it just that.

Modern interiors, they aver, will depend more and more on the "architecture" of light in which the decorative elements and fixtures will be subordinated to the lighting pattern.

In a recent survey of a current series of post-war lighting "perspectives" made by General Electric, the proposal is made that the whole house can be a lighting fixture. No one can exactly predict just how large a role lighting will play in the home of tomorrow, but the ideal objectives are clear.

Foremost is the aim to have lighting for easier seeing, to prevent eye strain and conserve vision. Lighting should bring into the home the sun's healthful tanning rays and its air-borne germ-killing ultraviolet. Lighting should heighten the home's charm, liveableness, and all-over decor.

In making the whole house a functional lighting unit, the problem must be approached from a structural concept. Ultimately, the surfaces on which light falls tend to determine lighting. Therefore, why not start with that concept and design the house as a lighting fixture?

The suggestion is that broad luminous surfaces be used for general illumination. Reading, sewing, ironing, shaving or other specific functions should have special lighting. Decoratively, light should emphasize texture or objects rather than be ornamented itself.

Architectonic lighting is the grand new phrase. It will apply in the design of modern store interiors, as aptly as it will to tomorrow's house.

Using light as a building material was an abstract idea of designers and dreamers, until the '39 Fairs. Now this new art of architectonic display lighting will have new and exciting applications in the large store interior.

Prefabricated units of light could be used three-dimentionally to synthesize the opposite effects of cathedral grandeur and spot intimacy. It could push walls and ceiling away from the eye and draw merchandise closer. The result would be a mood created to give the customer a feeling of expansiveness, and, at the same time, concentrate his attention on the merchandise itself—an irresistible combination for making sales.

Getting down to details, columns made of light could brilliantly illuminate display areas. Translucent plastic shields can be used in white or in color, to flatter any decorative color scheme. For an added selling punch, there can be incandescent spots recessed in the island display soffit.

A new twist of an old architectural trick would be the use of artificial skylights, illuminated with fluorescent lamps, to put an end to those parades to store doors or windows for checking fabric, weave and color. Molded or pressed from flat stock into any desired design, these plastic squares have the striking architectural effect of luminous glass block. Designed as unit panels, these squares can be grouped into any designated length or width.

Another decorative lighting unit are snap-on shields, screening fluorescent lamps, which are placed against corrugated reflectors made of plastic or metal. Designed to be made up in 18-inch or 24-inch sections, the unit can form continuous strip lighting, merely by fitting sections together to serve any length. By using the unit on columns or walls, the effect of cool, luminous background is gained to silhouette displays in lounges and other non-traffic areas.

Undoubtedly, as Mrs. America steps out to shop in the post-war world, she will find stores using light to challenge her eye, invite her in, helping her make easier, quicker appraisal of goods. The food store is especially dependent upon thoughtful planning and clear illumination for successful operation. Products of varying shapes, sizes, textures and colors must be organized and presented in a manner that is both efficient and friendly, if a stockroom is to be transformed into a profitable store.

Now that greater variety, flexibility and control of lighting are assured by the manufacturer, the architect will have a much broader lighting palette. He can achieve soft general illumination throughout his store interior by highlighting specific areas by the proper intensity and the appropriate suggestion of color.

Fresh vegetables can be coolly illuminated with lamps that accentuate their crisp green qualities. Meats will be fresh and attractive under soft warm light.

Emotional as well as visual scope of illumination has been happily expanded through improved controls and equipment. When peace permits our fixture manufacturers, our designers and architects to fully utilize new lighting tools, we will find both selling and living easier, pleasanter and more efficient.

ON January 1, 1945, the Utility Fan Corporation will change its name to UTILITY APPLIANCE CORPORATION. Since 1925 they have been manufacturers of ventilating equipment but since they have outgrown their former plants and equipment it was deemed advisable to adopt a more generalizing name. UTILITY APPLIANCE CORPORATION will occupy more than five acres of floor space in its Los Angeles plants.

3. Forming up and training the staffs and personnel of the Royal Navy, U. S. Navy and Royal Engineers to carry out the operation.

The time was, in fact, inadequate to complete this program, but the essential equipment with a suitable proportion of reserve was assembled and ready to go on the right date, although the personnel had not been able to complete a full program of training.

THE OPERATION

The first arrivals on the far shore were blockships, all of which made the crossing close behind the assault forces and arrived safely.

They were sunk by explosive charges, and their Naval and Merchant Navy crews were then brought back to the United Kingdom. The whole of this part of the operation was completed successfully during the five days following D-day, and provided some very valuable shelter on the beaches during the critical period.

Meanwhile, the concrete caissons, floating breakwaters and piers were being towed across at an average speed of four knots, the total distance being over 100 miles.

The caissons were towed empty across the Channel by one large tug and on arrival were maneuvered into position and then special valves were opened, allowing water to fill the ship and sink it in place. Valves were then left open so that the water level remained the same inside and out. It took roughly 22 minutes to sink the largest size caisson.

The total tug fleet available for towing the equipment was 85, varying from very large U. S. tugs of over 1,500 H.P., to small tugs of 600 H.P., not generally used in the open sea. A minimum of 210 tows was required, involving a weight of over 1,000,000 tons, allowing for a few losses by enemy action, and each round trip was expected to take three days. Luckily there were very few losses of tugs, and they carried out this unusual, strenuous and sometimes dangerous task with great patience, courage and skill.

On arrival, the concrete caissons had to be sunk accurately in places selected as a result of surveys made by a special party landed on D-day. In spite of the difficulty of picking the exact spot, the operation was carried out very successfully. By D plus 12 more than half the caissons were in position, and the harbors were already an impressive sight.

Similarly, advanced parties in special ships arriving on D-day had laid heavy moorings in deep water, to which the floating breakwaters were attached as they arrived. This operation was completed by D plus 8.

Meanwhile, port parties of Royal Engineers—or of Seabees in the American harbors—landed on D-day, had cleared mines, cut ramps in the esplanades and prepared roadways down to the beaches ready to receive the shore ends of the piers. The port party also included a naval beach commando, and detachment from the Royal Marines. This operation was half finished by D plus 12, by which time one pier hundreds of yards long with several pier heads, was complete, and coasters could be unloaded at any state of the tide.

Up to D plus 12, therefore, the operation was going to plan, very few accidents of the sea occurred, and air superiority was such that enemy interference had caused little trouble.

But on D plus 13 a gale blew up from the northeast which continued for three days—the worst June gale experienced for 40 years. Moreover, it came from the worst possible direction as the harbors were exposed to its full force. Unfortunately it caught the harbors at half-way stage. The American harbor suffered most severely as it was in a more exposed site, and the breakwaters were largely broken up, so much so that this, combined with the capture of Cherbourg, caused work on this harbor to be discontinued. The British harbor was protected to some extent by the Calvados Reef and suffered far less damage, from which it was soon able to recover and be completed.

The gale took a heavy toll of shipping and craft, but this was largely damage rather than dead loss, except in the case of the experimental floating breakwater, which broke up and ceased to give protection. The shelter provided by both harbors and the three additional block ship shelters, which stood up well in the gale, undoubtedly saved great loss of life and equipment. Unloading on the beaches elsewhere was quite impossible, but during this critical period a small but important trickle of stores could be landed in the harbor. Even on the worst day 800 tons of gasoline and ammunition, as well as many troops, were landed over the piers.

All the pier equipment which was on the voyage across when the gale started was sunk, but only one concrete caisson failed to weather the journey.

After the gale subsided, the work of construction continued as before, though a long spell of rough water prevented pier equipment from being towed over, so that the harbor was not unloading to maximum capacity until well into July.

Finally, however, it was complete, and a port bigger than many with famous names had been built in a few weeks against a lonely French beach.

Day after day, in all weathers, scores of ships of all sizes have moored within its shelter or berthed in unbroken lines alongside its quays. Never, even at the height of a peace-time trade boom, has so much shipping used such limited accommodation at one time.

Many thousands of British workmen were directly concerned with its making and scores of thousands more were indirectly employed. As a result of their craftsmanship, hundreds of thousands of tons of vital supplies, scores of thousands of men and many thousands of vehicles have been put ashore in the most rapid military build-up ever undertaken.

The prefabricated port made possible the liberation of western Europe.

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IN THE NEWS

BUILDING VOLUME GAINS

October building volume of the twenty-five leading cities in the eleven western states and British Columbia spurted ahead 27.81 per cent beyond September, according to Western Building's Monthly Statistical Survey, with 184 western cities reporting. The twenty-five leaders reported $12,018,906 for October, with but $9,403,712 for September.

In 184 identical western cities reporting to the Survey, the number of permits issued was up 10.66 per cent while volume was off, comparing the month with the same period in 1943. 14,921 permits were issued last month, with a valuation of $16,089,363; in October, 1943, 13,483 permits were issued with a valuation of $24,504,561.

Los Angeles continues to lead the twenty-five leaders with an October volume of $3,670,498. Vancouver, B. C., retains second place, while Seattle comes up from fourth to third place in the month's construction totals.

10 LEADING CITIES

	Oct., 1944	Sept., 1944	Oct., 1943
Los Angeles	$3,670,498	$3,184,706	$ 4,379,849
Seattle	1,193,495	578,703	3,677,438
San Diego	556,157	743,333	615,407
San Francisco	473,854	537,734	478,768
Portland	444,175	181,545	1,552,495
Oakland	290,587	230,199	1,783,855
Pasadena	197,395	77,900	41,139
Salt Lake City	165,542	146,950	168,295
Sacramento	157,000	78,198	47,406
Tacoma	92,915	73,275	139,735
	$7,241,618	$5,832,543	$12,884,387

VAN LEE SCHMIDT announces the opening of his office for the practice of architecture and engineering in room 1111 Architects Building, 816 W. 5th St., Los Angeles 13.

SUBSIDIZED HOUSING has been strongly opposed by Eric A. Johnston, President of the U. S. Chamber of Commerce. His logical contention is that an effective betterment in housing can be done only by private industry; that it can be done more effectively on MAIN ST. than on PENNSYLVANIA AVENUE.

GEO. E. ELLINGER, CHAS. H. LEE and JAS. H. MITCHELL are hard at work on the preliminary plans of their 436 dwelling unit FPHA housing project in Visitacion Valley in San Francisco.

NEW AIR FILTER DESIGN

A four-page bulletin entitled "Far-Air Filters," describes and illustrates a new type of Air Filter in designs for all industries.

This interesting and educational bulletin contains technical information and graph charts valuable in any filter problem: Farr Company, 2615 Southwest Drive, Los Angeles 43, California, for **free** copy.

THE STRUCTURAL ENGINEERS ASSOCIATION of Northern California is holding their election of officers this month, a little too early for this issue of ARCHITECT AND ENGINEER.

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are the factors that influence architects and contractors when selecting lumber and mill work — Quality of merchandise — Integrity and Ability of the firm—Service in physical equipment — Experience and Personnel — All these factors contribute to a speedy and satisfactory completion of construction with minimum of time and expense.

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Gas heating and ventilating, controlled by zones or rooms. For large or small houses.

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IN THE NEWS

PREDICTION CORRECT

Washington officials announce WPB and NHA have agreed to raise cost ceiling of new homes to $8,000 in high-cost areas with rental ceilings to $65 to permit construction of larger and better quality homes. This increase will be authorized under the H-2 program which applies to relief of housing shortages in congested areas, thus construction and subsequent sale, or rental, are not restricted to war workers.

FHA directors will be notified to resume processing of applications for Title II insured mortgages subject to local H-2 quotas to be established by NHA. Present plans call for authorization of volume between 50,000 and 60,000 dwelling units in first quarter of 1945.

NHA will soon announce H-2 quotas for new dwelling units, maximum sales prices and top rentals. These will govern granting of priorities for material.

As suggested in our Report, brokers and developers should urge clients to draw up final plans on the basis of this new order and submit them for priorities to the state FHA office.

J. FRANCIS WARD, A.I.A., has moved to new offices in rooms 725-727 at 369 Pine St., San Francisco, California.

CIVILIAN HOUSING has been brought nearer to normal by the announcement from NHA and WPB that many of the rigid war time restrictions on residential building are now removed in congested areas. They are permitting a limited number of houses to be sold or rented regardless of war time worker occupancy requirements.

ALBERT W. BURGEN has moved from 4905 Sixth Avenue, Los Angeles, back to San Francisco at 1830 Beach Street.

MR. J. E. RINNE has been nominated as Secretary of the San Francisco section, ASCE. President SEAGE, of the SEAONC, called for committee reports at the informal meeting on November 14. All the resolutions adopted were meritorious, especially the one recommending that "every possible endeavor should be made to assist and reestablish our members now with the armed forces when they return to us."

C. RAIMOND JOHNSON has moved from 2946 Belden Drive, Los Angeles, to 6201 Rodgerton Drive in the same city.

COLOTYLE OFFERS CASH FOR BATHROOM DESIGN

Fifteen hundred dollars in cash prizes will be given in a competition announced by Colotyle Corporation, for the best bathroom design using Colotyle plastic-coated wall sheets.

The contest, restricted to Western architects and draftsmen offers a grand prize of $500, with three sectional prizes of $250 each, and ten honorable mention awards of $25 each. The first sectional prize goes to the best design submitted from Washington, Idaho and Montana. The second to the best from Oregon, Utah and Nevada. The third to the best design from California and Arizona.

Architects and draftsmen desiring to enter designs should contact Colotyle Corporation, Aurora at Mercer, Seattle 9, Washington. Inquiries should be directed to Robt. McClelland, A.I.A., professional advisor, at 706 Republic Bldg., Seattle 1, Washington. Each entrant will be assigned an identifying number which will appear on his design.

Representative judges will be announced within the next two weeks.

Mr. A. H. Kinney, president of Colotyle Corporation stated, "This competition was born in conversations with many leading architects who forecast many changes in bathroom design in the post-war era. During the three years that private building was virtually at a standstill, many architects have undoubtedly given considerable thought to size, layout and design of bathrooms. The competition should bring out many of these ideas."

CHRISTMAS SUGGESTIONS

The San Francisco Museum of Art has come out with a practical suggestion for those who like books. They offer to sell or procure books on art for those who wish them for themselves and for those who would send them as Christmas gifts. They offer quite a few that are really good, such as "Twenty Centuries of Mexican Art," a book on Photography for the Amateurs, a well illustrated guide to the ten Latin American republics and many other art books that are worth while. They also offer greeting cards and gifts that might fit in with your needs.

At the San Francisco Museum of Art the Library will be closed from December 17 through January 14th and the galleries through the Christmas and New Year holidays.

PRODUCERS' COUNCIL PAGE

Northern California Chapter
The National Organization of Manufacturers of Quality Building Materials and Equipment
Affiliated with the AMERICAN INSTITUTE OF ARCHTECTS

Austin W. Sperry

Our Chapter is fortunate in having the active support of top Division management in many of our larger company members. Its prestige in no small measure is due to the fact that men like Austin W. Sperry see fit to retain active membership. And that is saying something for the importance of the Chapter's work.

Austin is Assistant Manager of the San Francisco Branch of Crane Co., and out of a busy life he found time to serve the Chapter as Publicity Committee Chairman in 1940, still keeps in touch with Chapter affairs.

He was born in San Luis Obispo, received his education in the public schools at San Jose, and started his climb in the Crane Co. as a stenographer. (There's a story in that about the American way . . . but let's get back to Austin.)

Active in civic and community affairs, Austin served as President of the San Francisco Rotary Club in 1934, President of the San Francisco Board of Trade in 1940, and Vice-President of the Bohemian Club that same year. He also lists the Family Club among his organizations in which he is active as well as the Bohemian Club, being particularly interested in music . . . and does he love to sing. It seems that on dull days during the Golden Gate International Exposition on Treasure Island, Austin used to step across the street to the Mormon Tabernacle opposite the Crane Exhibit and compete with the organ.

But he says his hobby is his six acre "ranch" near Los Gatos.

In Recognition of a swell job after being pitchforked into all the duties of President, George Quamby was named Acting President of the Chapter by the Executive Committee.

Happily President Horace Pickett's illness which necessitated the move is now on the convalescent side and it's like old times to have him at our meetings again.

Out of the year's casualties, Harry Lemos remains the only one still out of action, and our thoughts are particularly with him at this time of year.

One More Jinks has passed and the Northern California Chapter turns in its fourteenth year of service to the construction industry locally . . . a record to be proud of.

Don't Forget that the next most important date . . . The Annual Meeting on January 9th, when officers for the new year will be elected. 1945 holds forth much promise and fast moving changes may be expected.

Job Pile comes in for renewed Producers' Council attention. All the surveys and forecasts of post-war markets are fine, all the post-war plans are great, but by now they should be moved a step nearer to reality. To do this the Council has developed a dealer job follow-up card from which a job pile of post-war orders may be compiled. This is something we all can use.

Bottom has been reached in the construction curve according to the Market Analysis Committee of the Producers' Council. Volume of new construction in 1945 is estimated at 26 per cent greater than 1944, or about $4.8 billion, provided the war with Germany ends early in 1945 or sooner.

Of this, $2.8 billion is anticipated as private construction and $2 billion public.

Big problem will not be to promote more building during the post-war years. The Council sees a big back-log of both residential and industrial building in the field of private enterprise. Limiting factor will be the availability of materials, equipment and manpower immediately after the war.

(From Page 22)

ware with a blue-green glaze. The kinuta ware, so highly prized by the Japanese, is a Chang Ti yao. There are many other celadons, produced by various potters in all parts of China.

A group of celadon with buff-grey body and thin, dark olive-green glaze is called "Northern Celadon" because fragments in large quantity are found in excavations on northern sites in Honan. But the ware strongly suggests the pi-se yao of Yueh chou in northern Chekiang, hence the name may well be changed to "Northern Chekiang Celadon." Like all members of the celadon family it is generally decorated by incised, carved, stamped or moulded design.

The Ko ware is a crackled celadon made by the elder (ko) of the two Chang brothers. The clay is said to have been imported from the Phoenix Hill region at Hangchow and is dark in color, resulting in an "iron foot and dark mouth rim" in most cases. The crackles are regular and medium in size and generally dyed a dark color. The crackles were said to be produced by the addition of a powdered stone into the glaze material, resulting in a difference in the rate of contraction of the glaze and the body material when they are being cooled.

The Northern Kuan is like the Ko, but instead of a moist, opalescent glaze, it has an opaque marble-like glaze with long straggly crackle lines which are fairly wide apart and which often run parallel to each other. The color is usually blue-green, some having a decided blue tinge. Like the Ko the ware is said to have a dark pate. The Southern Kuan is made in two places in Hangchow (when the Court fled southward to escape the invading Mongols): at the Phoenix Hill and near the Suburban Altar, below the Tortoise Hill. The latter product has been identified as a greyish bodied ware with a thin blue-grey or green-grey celadon glaze which is generally finely crackled or crazed by time (resulting in a "fish-roe" pattern of crackles).

The Ju yao is a famed palace ware which is extremely rare even in Sung time and which has received the unqualified praise of connoisseurs. For a long time it has escaped identification but the loan of a number of Ju yaos to the epoch-making International Exposition of Chinese Art in London, 1935-36, by the Chinese government, has enabled collectors to place it as a buff-bodied ware with a thick, greenish-blue glaze which is usually crackled. Vases, jars, and dishes have sprayed foot-rims, and there is generally a ring of over-shaped spur marks at the bottom.

In the quality and whiteness of its glaze and paste the Ting ware comes nearest to modern porcelain. White wares were produced as early as the T'ang dynasty in several centers, for they

(See Page 42)

IN THE NEWS

ENGINEERS SHOULD KNOW MORE DESIGN; DESIGNERS MORE ENGINEERING, SAYS ASME SPEAKER

"Engineers must know more about and give more attention to aesthetics in design and be ready to work with the modern architectural or industrial designer," Professor J. K. Finch, Renwick Professor of Civil Engineering and Associate Dean of the School of Engineering at Columbia University, declared in an address delivered before the American Society of Mechanical Engineers in New York. "At the same time," Professor Finch stated, "the modern designer must certainly know more about engineering unless he is satisfied to create a false, make-believe, pseudo-functional type of design."

In a paper entitled: "The Evolution of Design," Professor Finch said that the modern trend in design involves both the engineer and the artist, but it "very clearly originates in the approach and methods of the engineer. The modern designer, industrial, architectural, or artistic, cannot undertake functional design with success unless he has a keen and clear understanding of the engineering approach to design. Functionalism leads only to funnyism unless it is based on understanding."

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ARCHITECT AND ENGINEER

Estimator's Guide

Giving Cost of Building Materials, Etc.

AMOUNTS GIVEN ARE FIGURING PRICES AND ARE MADE UP FROM AVERAGE QUOTATIONS FURNISHED BY MATERIAL HOUSES TO SAN FRANCISCO CONTRACTORS. 2½% SALES TAX ON ALL MATERIALS BUT NOT LABOR

All prices and wages quoted are for San Francisco and the Bay District. There may be slight fluctuation of prices in the interior and southern part of the state. Freight cartage, at least, must be added in figuring country work.

BONDS—Performance—50% of contract.

Labor and materials—50% of contract.

BRICKWORK—

Common Brick—Per 1M laid—$50.00 to $60.00 (according to class of work).

Face Brick—Per 1M laid—$120 to $150 (according to class of work.)

Brick Steps—$1.60 per lin. ft.

Brick Veneer on Frame Bldg.—Approx. $1.30 per sq. ft.

Common Brick—$19.00 per M, truckload lots, f.o.b. job.

$19.00 per M, less than truckload, plus cartage.

Face Brick—$40 to $80 per M, truckload lots, delivered.

Cartage—Approx. $4.00 per M.

BUILDING PAPER—

1 ply per 1000 ft. roll	$3.50
2 ply per 1000 ft. roll	5.00
3 ply per 1000 ft. roll	6.25
Brownskin, Standard, 500 ft. roll	5.00
Sisalkraft, 500 ft. roll	5.00
Sash cord com. No. 7	$1.20 per 100 ft.
Sash cord com. No. 8	1.50 per 100 ft.
Sash cord spot No. 7	1.90 per 100 ft.
Sash cord spot No. 8	2.25 per 100 ft.

Sash weights, cast iron, $50.00 ton.
Nails, $3.42 base.
Sash weights, $45.00 per ton.

CONCRETE AGGREGATES—

The following prices net to Contractors unless otherwise shown.

Gravel, all sizes—
$1.95 per ton at Bunker; delivered $2.50

	Bunker	Del'd
Top Sand	$1.90	$2.50
Concrete Mix	1.90	2.45
Crushed Rock, ¼" to ¾"	1.90	2.50
Crushed Rock, ¾" to 1½"	1.90	2.50
Roofing Gravel	2.25	2.80
River Sand	2.00	2.45

Sand—

River Sand	2.00	2.45
Lapis (Nos. 2 & 4)	2.85	3.15
Olympia (Nos. 1 & 2)	2.85	3.10
Del Monte White	84c per sack	

Cement—

Common (all brands, paper sacks), carload lots, $2.42 per bbl. f.o.b. car; delivered $2.72.

Cash discount on carload lots, 10c a bbl., 10th Prox.; less than carload lots $3.20 per bbl. f.o.b. warehouse or delivered.

Cash discount 2% on L.C.L.

Atlas White, Calaveras White, Medusa White } 1 to 100 sacks, $2.50 sack warehouse or del.; $7.65 bbl. carload lots.

Forms, Labors average $200.00 per M.

Average cost of concrete in place, exclusive of forms, 35c per cu. ft.; $10 cu. yd.; with forms, 60c.

4-inch concrete basement floor ..... 30c per sq. ft.

Rat-proofing 7½c

Concrete Steps ..... $1.25 per lin. ft.

DAMPPROOFING and Waterproofing—

Two-coat work, $3.50 per square.

Membrane waterproofing—4 layers of saturated felt, $7.00 per square.

Hot coating work, $2.50 per square.

Medusa Waterproofing, $3.50 per lb. San Francisco Warehouse.

Tricocel waterproofing.
(See representative.)

ELECTRIC WIRING—$12 to $15 per outlet for conduit work (including switches).

Knob and tube average $3.00 per outlet. (Available only for priority work.)

ELEVATORS—

Prices vary according to capacity, speed and type. Consult elevator companies. Average cost of installing a slow speed automatic passenger elevator in small four story apartment building, including entrance doors, about $6500.00.

EXCAVATION—

Sand, 60 cents; clay or shale $1 per yard. Teams, $12.00 per day.

Trucks, $22 to $27.50 per day.

Above figures are an average without water. Steam shovel work in large quantities, less; hard material, such as rock, will run considerably more.

FIRE ESCAPES—

Ten-foot galvanized iron balcony, with stairs, $150 installed on new buildings; $160 on old buildings.

FLOORS—

Composition Floor, such as Magnesite, 33c to 50c per square.

Linoflor—2 gages—$1.25 to $2.75 per sq. yd.

Mastapay—90c to $1.50 per sq. yd.

Battleship Linoleum—available to Army and Navy only—⅛"—$1.75 sq. yd. 3/16"—$2.00 sq. yd.

Terazzo Floors—50c to 70c per square.

Terazzo Steps—$1.75 per lin. ft.

Mastic Wear Coat—according to type—20c to 35c.

Hardwood Flooring—
Standard Mill grades not available.
Victory Oak—T & G

25/32 x 2¼"	$143.25 per M. plus Cartage
½ x 2"	122.00 per M. plus Cartage
½ x 1½"	113.50 per M. plus Cartage

Prefinished Standard & Better Oak Flooring

25/32 x 3¼"	$180.00 per M. plus Cartage
½ x 2½"	160.50 per M. plus Cartage

Maple Flooring

25/32" T & G Clear	$160.50 per M. plus Ctg.
2nd	153.50 per M. plus Ctg.
3rd	131.25 per M. plus Ctg.

Floor Layers' Wage, $1.50 per hr.

GLASS—

Single Strength Window Glass	20c per □ ft
Double Strength Window Glass	30c per □ ft.
Plate Glass, under 75 sq. ft.	$1.00 per □ ft.
Polished Wire Plate Glass	1.40 per □ ft.
Rgh. Wire Glass	.34 per □ ft.
Obscure Glass	.27 per □ ft.

Glazing of above is additional.
Glass Blocks ..... $2.50 per □ ft. set in place

HEATING—

Average, $1.90 per sq. ft. of radiation, according to conditions.

Warm air (gravity) average $48 per register.

Forced air, average $68 per register.

IRON—Cost of ornamental iron cast iron, etc., depends on designs.

LUMBER—All lumber at O.P.A. ceiling prices—

No. 1 Common	$49.00 per M
No. 2 Common	47.75 per M
Select O. P. Common	52.75 per M

Flooring—

	Delvd.
V.G.-D.F. B & Btr. 1 x 4 T & G Flooring	$80.00
C 1 x 4 T & G Flooring	75.00
D 1 x 4 T & G Flooring	65.00
D.F.-S.G. B & Btr. 1 x 4 T & G Flooring	61.00
C 1 x 4 T & G Flooring	59.00
D 1 x 4 T & G Flooring	54.00
Rwd. Plastic—"A" grade, medium dry	82.00
"B" grade, medium dry	78.50

Plywood—

	Under $200	Over $200
"Plyscord"—3/8"	$49.50	$47.55
"Plywall"—1/4"	45.15	43.30
3 ply—2/s—1/4"	48.55	46.60
"Plyform"—5/8"—		
Unoiled	126.50	121.45
Oiled	127.90	122.75

Above prices delivered if quantity is sufficient to warrant delivery.

Shingles (Rwd. not available)—

Red Cedar No. 1—$6.75 per square; No. 2, $5.75; No. 3, $4.45.
Average cost to lay shingles, $3.00 per square.
Cedar Shakes—Tapered: 1/2" to 3/4" x 25"—$8.95 per square.
Resawn: 3/4" to 1 1/4" x 25"—$10.65 per square.
Resawn: 3/4" to 1 1/4" x 25"—$10.65 per square.
Average cost to lay shakes, $4.00 per square.

MILLWORK—Standard.

O. P. $100 per 1000. R. W. rustic $100.00 per 1000 (delivered).
Double hung box window frames, average with trim $6.50 and up, each.
Complete door unit, $10.00.
Screen doors, $3.50 each.
Patent screen windows, 25c a sq. ft.
Cases for kitchen pantries seven ft. high, per lineal ft., $9.00 each.
Dining room cases, $9.00 per lineal foot. Rough end finish about 80c per sq. ft.
Labor—Rough carpentry, warehouse heavy framing (average), $40.00 per M.
For smaller work average, $40.00 to $55.00 per 1000.

MARBLE—See Dealers)

PAINTING—

Two-coat work	per yard 50c
Three-coat work	per yard 70c
Cold water painting	per yard 10c
Whitewashing	per yard 8c

PAINTS—

Two-coat work	50c per sq. yd.
Three-coat work	70c per sq. yd.
Cold water painting	per yard 10c
Whiteweshing	8c per sq. yd.

Turpentine $1.03 per gal. in drum lots. $1.08 per gal. in 5-gal. containers.
Raw Linseed Oil—not available.
Boiled Linseed Oil—$1.38 per gal. in drums. Available only to work with high priority—$1.48 per gal. in 5-gal. containers.
Use replacement oil—$1.86 per gal. in 1-gal. containers.
Replacement Oil—$1.20 per gal. in drums. $1.30 per gal. in 5-gal. containers.
A deposit of $6.00 required on all drums.

PATENT CHIMNEYS—

6-inch	$1.20 lineal foot
8-inch	1.40 lineal foot
10-inch	2.15 lineal foot
12-inch	2.75 lineal foot

PLASTER—

Neat wall, per ton delivered in S. F. in paper bags, $17.60.

PLASTERING (Interior)—

	Yard
3 Coats, metal lath and plaster	1.50
Keene cement on metal lath	1.80
Ceilings with 3/4 hot roll channels metal lath (lathed only)	1.20
Ceilings with 3/4 hot roll channels metal lath plastered	2.20
Single partition 3/4 channel lath 1 side (lath only	1.20
Single partition 3/4 channel lath 2 inches thick plastered	3.20
4-inch double partition 3/8 channel lath 2 sides (lath only)	2.20
4-inch double partition 3/4 channel lath 2 sides plastered	3.85
Thermax single partition; 1" channels; 2 1/4" overall partition width. Plastered both sides	3.30
Thermax double partition; 1" channels; 4 3/4" overall partition width. Plastered both sides	4.40
3 coats over 1" Thermax nailed to one side wood studs or joists	1.65
3 coats over 1" Thermax suspended to one side wood studs with spring sound isolation clip	1.90

Note—Channel lath controlled by limitation orders.

PLASTERING (Exterior)—

	Yard
2 coats cement finish, brick or concrete wall	$1.00
3 coats cement finish, No. 18 gauge wire mesh	2.00

Lime—$3.00 per bbl. at yard.
Processed Lime—$3.10 bbl. at yard.
Rock or Grip Lath—3/8"—20c per sq. yd.
1/2"—19c per sq. yd.

Composition Stucco—$1.80 to $2.00 sq. yard (applied).

PLUMBING—

From $100.00 per fixture up, according to grade, quantity and runs.

ROOFING—

"Standard" tar and gravel, 4 ply—$8.00 per sq. for 30 sqs. or over.
Less than 30 sqs. $9.50 per sq.
Tile, $30.00 to $40.00 per square.
Redwood Shingles, $7.50 per square in place.
5/2 #1-16" Cedar Shingles, 4 1/2" Exposure $8.00 square
5/8 x 16"—#1 Cedar Shingles, 5" Exposure $9.00 square
4/2 #1-24" Royal Shingles, 7 1/2" Exposure $9.50 square
Re-coat with Gravel $4.00 per sq.
Asbestos Shingles, $23 to $28 per sq. laid.
1/2 x 25" Resawn Cedar Shakes, 10" Exposure $10.50
3/4 x 25" Resawn Cedar Shakes, 10" Exposure 11.50
1 x 25" Resawn Cedar Shakes, 10" Exposure 12.50
Above prices are for shakes in place.

SHEET METAL—

Windows—Metal, $1.75 a sq. ft.
Fire doors (average), including hardware $2.00 per sq. ft.

SKYLIGHTS—(not glazed)

Copper, 90c sq. ft. (flat).
Galvanized iron, 40c sq. ft. (flat).
Vented hip skylights 60c sq. ft.

STEEL—STRUCTURAL (None available except for defense work).

$150 ton (erected), this quotation is an average for comparatively small quantities. Light truss work higher. Plain beams and column work in large quantities $140 per ton.

STEEL REINFORCING (None available except for war work).

$150 to $200 ton, set.

STONE—

Granite, average, $6.50 cu. foot in place.
Sandstone, average Blue, $4.00. Boise, $3.00 sq. ft. in place.
Indiana Limestone, $2.80 per sq. ft. in place.

STORE FRONTS (None available).

TILE—

Ceramic Tile Floors—70c to $1.00 per sq. ft.
Cove Base—$1.10 per lin. ft.
Glazed Tile Wainscot—$1.25 per sq. ft.
Asphalt Tile Floor 1/8" & 3/16"—$ .18 to $ .35 per sq. ft. Light shades slightly higher.
Cork Tile—$ .40 to $ .75 per sq. ft.
Mosaic Floors—see dealers.
Lino-Tile, $ .35 to $ .75 per sq. ft.

Wall Tile—

Glazed Terra Cotta Wall Units (single faced) laid in place—approximate prices:

2 x 6 x 12	$1.10 sq. ft.
4 x 6 x 12	1.25 sq. ft.
2 x 8 x 16	1.20 sq. ft.
4 x 8 x 16	1.40 sq. ft.

VENETIAN BLINDS—

40c per square foot and up. Installation extra.

WINDOWS—STEEL—

30c per square foot, $5 for ventilators.

THREE MONTHS' MOTION PICTURE SERIES

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Saturday Afternoons at 2:30
Admission Free

January, February, March, 1945

Private Life of Don Juan—Douglas Fairbanks, Sr., Merle Oberon. January 6.

Nurse Edith Cavell—Anna Neagle, May Robson. January 13.

Story of Vernon and Irene Castle—Fred Astaire, Ginger Rogers. January 20.

Catherine The Great — Douglas Fairbanks, Jr., Elizabeth Bergner. January 27.

Abe Lincoln in Illinois—Raymond Massey, Ruth Gordon. February third.

The Magnificent Ambersons — Joseph Cotton, Dolores Costello, directed by Orson Welles—February 10.

Flame of New Orleans — Marlene Dietrich, Bruce Cabot, directed by Rene Clair. February 17.

Citizen Kane—Written, produced, directed and acted by Orson Welles. March 3.

Hunchback of Notre Dame — Charles Laughton, Maureen O'Hara. March 10.

Corregidor — Otto Kruger, Elissa Landi. March 17.

Journey Into Fear—Joseph Cotten, Dolores Del Rio, Orson Welles. March 24.

The Golem—French dialogue, English subtitles; Harry Baur as Emperor Charles of Bohemia. March 31.

Note: We shall do our best to maintain the above schedule, but because of present war conditions there may be an occasional substitution.

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1944 BUILDING TRADES WAGE SCALES (JOB SITE) NORTHERN CALIFORNIA

Six- and seven-hour day eliminated on all Government Work. A. F. L. - O. P. M. Agreement calls for eight-hour day.

NOTE: Predeterminations by the Department of Labor, as of July 1 (the wage-freezing date) have not yet been made in all of the counties listed. The wage scales shown are those being paid and in effect mostly by agreement between employers and their union.

CRAFT	San Francisco	Alameda and Contra Costa	Fresno	Marin	Sacramento	San Jose	San Mateo	Vallejo	Stockton
ASBESTOS WORKERS	1.50	1.50	1.25	1.50	1.50	1.25	1.50	1.50	1.25
BRICKLAYERS	1.87½	1.87½	1.75	1.87½	1.75	2.00	1.79-1/6	1.75	1.50
BRICKLAYERS, HODCARRIERS	1.40	1.40	1.05	1.40	1.05	1.50	1.35	1.50	1.14
CARPENTERS	1.50	1.50	1.25	1.43¾	1.37½	1.37½	1.43¾	1.50	1.37½
CEMENT FINISHERS	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
ELECTRICIANS	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70
ELEVATOR CONSTRUCTORS	1.75½	1.75½	1.75½	1.75½	1.75½	1.75½	1.75½	1.75½	1.75½
ENGINEERS: MATERIAL HOIST	1.50	1.50	1.25	1.50	1.37½	1.62½	1.50	1.37½	1.25
PILE DRIVER	1.75	1.75	1.60	1.75	1.75	1.75	1.75	1.75	
STRUCTURAL STEEL	1.75	1.75	1.60	1.75	1.75	1.75	1.75	1.75	1.60
GLASS WORKERS	1.40	1.40	1.12½	1.40	1.12½	1.21	1.40	1.40	
IRONWORKERS: ORNAMENTAL	1.60	1.50	1.60	1.50	1.40	1.31¼	1.50	1.50	
REINF. RODMEN	1.50	1.50	1.60	1.50	1.50	1.60	1.50	1.50	1.25
STRUCTURAL	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.37½
LABORERS: BUILDING	1.00	1.00	.90	.87½	.95	.90	.93¾	.90	.90
CONCRETE	1.00	1.00	.90	.87½	.95	.90	.93¾	.95	1.00
LATHERS	1.75	1.75	1.50	1.75	1.60	1.75	1.75	1.75	1.75
MARBLE SETTERS	1.50	1.50	1.90	1.50	1.50	1.50	1.50	1.50	1.50
MOSAIC & TERRAZZO	1.25	1.25	1.12½	1.25	1.15-5/8	1.12½			
PAINTERS	1.50	1.50	1.28-4/7	1.50	1.43	1.50	1.42-6/7	1.64-2/7	1.37½
PILEDRIVERS	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54	1.54
PLASTERERS	1.75	1.83½	1.75	1.75	2.00	2.00	2.00	1.75	1.83-1/3
PLASTERERS' HODCARRIERS	1.50	1.60	1.40	1.50	1.18¾	1.50	1.75	1.50	1.50
PLUMBERS	1.70	1.70	1.53-1/8	1.70	1.68¾	1.62½	1.70	1.70	1.50
ROOFERS	1.50	1.50	1.25	1.37½	1.37½	1.37½	1.25	1.37½	1.37½
SHEET METAL WORKERS	1.50	1.50	1.50	1.50	1.50	1.50	1.37½	1.50	1.50
SPRINKLER FITTERS	1.58	1.58	1.53-1/8	1.70	1.68¾	1.62½	1.70	1.70	1.50
STEAMFITTERS	1.75	1.75	1.53-1/8	1.70	1.68¾	1.62½	1.50	1.70	1.50
STONESETTERS (MASONS)	1.87½	1.87½	1.50	1.75	1.75	1.50	1.75	1.75	1.50
TILESETTERS	1.50	1.50	1.37½	1.50	1.37½	1.50	1.50	1.50	1.37½

Prepared and compiled by
CENTRAL CALIFORNIA CHAPTER, ASSOCIATED GENERAL CONTRACTORS OF AMERICA
with the assistance and cooperation of secreteries of General Contractors Associations and Builders Exchanges of Northern California.

(From Page 38)

were mentioned in Chinese literature, but by Sung time a beautiful white ware was produced at Ting Chou, Hopeh (formerly Chih-li) province which became famous as one of the classic wares in the history of Chinese ceramics. The ware may be considered as a refined form of ying-ching, the buff or blue-green tinge of the celadon being completely eliminated. Also, the potters succeeded in producing a semi-translucent paste which is pure white or nearly so, and the exposed portion of the body does not turn brown in the heat of the kiln.

According to Chinese writers the Ting kilns turned out their best pieces during the reigns of Cheng Ho and the Hsuan Ho (1111-1125 A.D.) but specimens, if available, would be very rare indeed. Two years after this period the potters fled from Mondol domination by moving southward to the vicinity of Ching-te Chen (old Chang-nan), and it is believed that the best of the Ching-te Chen potters are from the Ting kilns. But probably other kilns were started by Ting potters in regions south of the Yangtze River, for the kiang-nan Ting (south-of-the-Rier Ting), though inferior to the original, has much of the style and characteristics of the northern ware.

The usual Ting ware is called pai ting (white ting). There is also a fen-ting (rice-flour Ting) and this designation is given not so much because of its creamier color—even pai-ting has a creamy or ivory tone—but because the paste is lighter in weight and approaches modern soft paste in texture. A grey ting-type, called tu ting (earthen ting) has a sandy grey paste and a grey-white glaze which is usually highly crazed. There are also Ting yao with crackles, orange skin effect (faint undulations of the surface) and buff coloration, but these are generally associated with the kiang-nan varieties.

The Chun yao is in a class by itself. While a large number of Chun ware are of the monochrome class (which is to the taste of the time) an equally large number are of the splashed type and so are held in lesser esteem. However, the best of the Chun ware, together with the better of all the types considered so far, received royal patronage, and are considered classic wares of the Sung dynasty.

Made in the K'ai-feng Fu region of Honan in modern Yu Hsien, it is named after a Chun Tai (Terrace of the Great Maker) situated in that region. The ware has a buff-grey body and a thick opalescent or semi-opaque glaze which ranges in color from a light blue to a vivid cherry-red. Basically it is a blue glaze with purplish or reddish splashes or striations, sometime the reddish color almost covering the entire surface. At other times the red is completely absent. A few are crazed or crackled.

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Some of the names used to describe the colors are tien ch'ing (cerulean blue), tien lan (azure blue), mei-kewi tzu (rose-purple), and shih-liu hung (pomegranate red).

Some Chun glazes have what is called ch'iu-ying wen (earthworm markings). These are wabbly lines found near the surface and is usually a shade lighter than the ground color. These are fissure scars; the fissure which occured during the initial firing stage being filled with softer elements in the glaze almost immediately. They are generally found only in older specimens. One particularly fine kind of Chun yao has a ring of spur marks on the area within the foot-rim which is glazed brown. They also have stamped numbers, one to ten, which indicate the size of the ware. These Chuns, generally in the shape of flower pots, often have striations of a very vivid cherry red.

Another variety, called Ma Chun or Soft Chun, has a soft turquoise blue ground broken with one or more splashes of red. It has a buff body and the glaze was evidently fired at a lightly lowered temperature. It probably originated during the late Sung or Yuan period. Regardless of variety, Chun ware are among the most treasured of stonewares by collectors today.

DECEMBER BRINGS NOTABLE EXHIBITS.—Through the month of December the California Palace of the Legion of Honor in Lincoln Park, San Francisco, will hold three notable exhibits. The first, CANADIAN PAINTINGS, will undoubtedly receive a great deal of attention from those art lovers who so thoroughly enjoy the unaffected and enthusiastic characteristics that pervade Canadian Art. Five of the artists of this exhibit were in the Century of Canadian Art exhibit in the Tate Gallery in London in 1938, and seventeen of the twenty-two were invited to exhibit at the Addison Gallery of American Art in Andover in 1942 when the exhibit of "Contemporary Painting in Canada" was held.

The second exhibit will be that of CRAFTWORK BY THE SOUTHERN HIGHLANDERS. You may never have worn either kilts or kilties, or eaten a haggus, but you will enjoy this exhibit.

The third is the EXHIBITION OF PAINTINGS AND SCULPTURE Sponsored by the SOCIETY FOR SANITY IN ART. Whatever conclusion you may reach these paintings and sculptures will help.

G. W. WILLIAMS COMPANY, of Burlingame were low bidders of architects MILLER and WARNECKE'S 180 family dwelling unit project in Alameda County. The low bid was $432,870.

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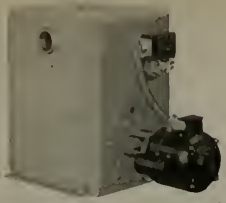

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IN THE NEWS

ROBERT B. PARKS

Moving swiftly to meet an unexpected onrush of applications from San Francisco Bay area manufacturers for prices on new civilian goods, Robert B. Parks, Office of Price Administration, district director, announced the establishment of a special unit to service the wide field of reconversion pricing.

OCTOBER BUILDING PERMITS

(From Page 31)

	October	Ten Months	% Change Previous Year
1944	$105,428,458	$679,659,753	+ 62.5
1943	48,227,985	418,359,873	— 42.2
1942	44,707,721	723,629,952	— 43.3
1941	124,745,508	1,277,134,055	+ 11.4
1940	137,159,305	1,146,575,037	+ 7.9
1939	118,942,371	1,063,071,073	+ 9.8
1938	97,111,919	968,301,864	+ 2.7
1937	90,712,493	942,583,027	+ 14.7
1936	90,701,556	821,432,929	+ 72.1
1935	66,965,705	477,418,081	+ 59.3
1934	37,501,122	299,805,958	+ 15.0
1933	26,198,342	260,739,318	— 24.8
1932	26,107,428	346,707,931	— 67.1
1931	76,929,109	1,053,776,089	— 27.3
1930	126,659,621	1,448,980,871	— 44.8
1929	213,089,242	2,623,606,248	— 8.1
1928	252,058,124	2,855,460,936	— 1.4
1927	250,021,123	2,895,753,249	.....

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